DOCUMENT RESUME

ED 330 066 EA 022 782

AUTHOR	King, Al
TITLE	Synthesis of Information Relating to School and Business Partnerships.
INSTITUTION	Southwest Educational Development Lab., Austin, Tex.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	28 Feb 86
CONTRACT	400-86-0008
NOTE	80p.
AVAILABLE FROM	Southwest Educational Development Laboratory, 211 East 7th Street, Austin, TX 78701 ($10.50 prepaid; $2.00 shipping).
PUB TYPE	Reports - Descriptive (141) -- Information Analyses (070)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Career Exploration; Change Strategies; *Cooperative Education; *Cooperative Programs; Corporate Support; Elementary Secondary Education; *School Business Relationship; *School Community Relationship; Work Experience Programs
IDENTIFIERS	*Partnerships in Education

ABSTRACT

In efforts to upgrade the quality of education, many schools are finding ways to use community resources by forming partnerships with local businesses and other organizations. Businesses can help provide enrichment experiences, school to work preparation, incentives/equal educational opportunities, and assistance to school staff and administration in improving education. Four conditions form the context for successful collaboration in establishing a partnership: (1) shared or overlapping goals; (2) community resources that meet school needs; (3) exchange and application of resources; and (4) feedback about results. The four phases of issues and guidelines related to partnerships (getting started, implementation, sustaining interest and momentum, and evaluation) are outlined. Costs and benefits of partnerships can include an investment of school and business resources, a deeper understanding of basic skill use in business for students, and an enhanced company image for businesses. (177 References) (EJS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED330066

EA

SYNTHESIS OF INFORMATION

RELATING TO

SCHOOL AND BUSINESS PARTNERSHIPS

Prepared by

Al King
Senior Researcher
School Improvement Resources Group

February 28, 1986

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

SOUTHWEST EDUCATIONAL DEVELOPMENT LABORATORY
211 East Seventh Street Austin, Texas 78701 512/476-6861

BEST COPY AVAILABLE

EA 022 782

SYNTHESIS OF INFORMATION
RELATING TO
SCHOOL AND BUSINESS PARTNERSHIPS

by

Al King

February 28, 1986

The Southwest Educational Development Laboratory
Dr. Preston C. Kronkosky, Executive Director
211 East Seventh Street, Austin, Texas 78701

Office of Educational Research and Improvement
U.S. Department of Education

This publication is based on work sponsored wholly, or in part, by the Office of Educational Research and Improvement, Department of Education, under Contract Number 400-86-0008. The content of this publication does not necessarily reflect the views of OERI, the Department, or any other agency of the U.S. Government.

TABLE OF CONTENTS

		PAGE
I.	INTRODUCTION AND OVERVIEW.	1
	References for Introduction and Overview, pp. 10-14	
II.	PURPOSES OF PARTNERSHIPS (How Can Help Students)	15
	A. Enrichment of Experiences for Students	15
	1. For Disadvantaged.	15
	2. For Gifted and Talented.	17
	3. For All.	18
	B. School-to-Work Experiences for Students.	20
	References for Enrichment and School-to-Work Experiences, pp. 22-24	
	C. Incentives and Equal Educational Opportunities for Students	24
	References for Incentives and Equal Educational Opportunities, pp. 34-37	
	D. Assistance to Teachers, Administrators, and Other School Staff	37
	References for Assistance, pp. 50-53	
III.	A PROCESS FOR PARTNERSHIPS (How To).	54
	A. Establishing a Context for Partnerships.	54
	B. Dealing with Issues Related to Partnerships.	58
	C. Networking for Partnerships.	63
	References for Networking, pp. 65-66	
IV.	COSTS AND BENEFITS OF PARTNERHIPS.	67
	References for Costs and Benefits, p. 74	

SYNTHESIS OF INFORMATION ABOUT SCHOOL AND BUSINESS PARTNERSHIPS

I. INTRODUCTION AND OVERVIEW

Schools are being asked to do more with less. In an era of declining enrollments, diminishing public confidence, and fewer federal funds, schools are experiencing increasing costs. Some communities have refused to raise additional tax or bond money for school improvement.

In their efforts to upgrade the quality of the education they provide, many schools are finding ways to use community resources. These schools have formed partnerships with local business, industry, labor, higher education, and other organizations and agencies to enable them to use local resources more effectively. Much of this cooperation has come about because of school desegregation. A good desegregation program includes community involvement and support. In Dallas, Louisville, St. Louis, and other cities, businesses provided leadership training and/or sponsored desegregation-related projects. In Boston, a federal court-mandated desegregation plan ordered certain schools paired with businesses and higher education agencies in the community.

It appears that most corporate involvement in school improvement activities focuses on direct preparation of high school and college students for work, particularly for marketable technological and other job skills (Schilit and Lacey, 1982; Bhaerman, 1983; and Katz, 1983). For this reason corporations contribute heavily to business and trade schools as well as to vocational and career education programs in public and private high schools and community colleges (Council for Advancement and Support of Education, 1978; Fraser, 1981). Business and industry also provide support and input for "transition" programs to facilitate youths' change from school to work. High school courses built on free enterprise and similar concepts are also designed to prepare students for the world of work, but deal more with values, attitudes, and knowledge of economic principles and business organization than with manual or technical skills (Elsman, 1981).

While many educators are becoming more interested in using private sector resources, many in the private sector have become increasingly concerned about the quality of education in public schools in the United States. In 1983, Research & Forecasts polled 108 randomly selected senior executives of 1,300 corporations listed in Fortune Magazine. Nine out of 10 of the nation's top business leaders polled said that improvements in education are needed, with 46 percent indicating that education should be an immediate national priority. More than half (59 percent) indicated that it will be impossible to compete with foreign companies in the future if U.S. students are not required to meet higher educational standards (Research & Forecasts, Inc. 1983).

Similarly, a Yankelovich, Skelly, & White national survey indicated that 76 percent of U.S. corporate executives believed that "job training/retraining" was the highest "priority area for businesses to help fill gaps left by shrinking government budgets." The next priority area was "education," as identified by 57 percent of the executives surveyed (Keller, 1983).

A number of corporate executives have made public calls for more private sector assistance for public schools. For example, Arthur Levitt, Jr., chairman of the American Stock Exchange (Amex), indicated to the Public Education Association in November 1981 that (1) too many school districts in this country were not doing an adequate job and (2) it was in the self-interest of businesses to help schools improve their quality of education.

To support his position, Levitt told of the Amex experience in hiring about 30 new "floor reporters" each year. These new employees were not "familiar with simple fractions and numbers" and could not fill out the card necessary for each transaction on the floor of the Exchange. The new employees have such a low level of abilities, Levitt said, "we have to teach some basic skills...even before we can begin to train them for their jobs." The cost for doing this was estimated to be $65,000. Levitt concluded that this was a large amount of money to spend teaching people

basic skills that should have been learned years earlier in school (Levitt, November 1981).

Other corporate executives also have called attention to a need for the development of higher skills. In December 1983, Philip Caldwell, chairman of the board, Ford Motor Co., indicated that despite the fact that the U.S. spends more than $200 billion, or 6.8 percent of its gross national product on education, the United States is in danger of intellectual bankruptcy in some key areas. Further, he believes that the country has failed to develop its human capital with the same zeal that has been applied to its material and financial resources (ASTD, December 1983).

Albert Sommers, senior vice president and chief economist for The Conference Board, reported that factors such as the available supply of skills for the labor force have become critical issues. Therefore, he concluded, the United States must devote a higher proportion of its resources to human development (ASTD, December 1983).

There has been a growing realization that human resource development is critical to the community and to the national economy as well as to corporate well-being (Carnevale, 1982; Lacey, 1983; Youngs, 1983; NASW, 1985; and Peters and Austin, 1985). It seems apparent that corporate leaders, at least those who have become familiar with the concept of increasing productivity of their business or industry through human resource development of their work force, should be interested in the feasibility of applying the concept to improving the quality of education in public schools. As Arthur Levitt said of low quality education: "Such a loss of human resources is keenly felt in the business world," and it is time to consider seriously "the price business pays when schools do not function" (Levitt, 1981).

Recent discussions and actions with respect to improvements in education are focused mainly on the concepts of "quality education" and/or "effective schools." The following definition and description are offered as a basis for discussing these concepts in this synthesis:

> Quality education is the outcome of effective schools and includes a range of experiences that (1) focus on learner

academic achievement, (2) employ a variety of teaching methods, (3) promote learning on the part of all students, (4) take into account individual differences, (5) produce learner competencies in terms of measurable knowledge and skill outcomes, and (6) develop positive student behavior in and out of the classroom.

The description of effective schools provided here is general in order to include several characteristics. For the most part, "effective schools" is a complex concept that produces considerable disagreement among educators when it is discussed. However, there does seem to be consensus regarding some of the assumptions with respect to effective schools (Westbrook, 1982, pp. 7-10). The following statements are indicative of that consensus:

- Effectiveness is on the same qualitative continuum that includes ineffectiveness.

- The factors that make a school effective are common to all schools. There is no magic in the one and not the other. Rather, it depends upon the nature of the factors and how they are implemented. Among these factors are:

Attitudes	Instruction	Staff
Community Involvement	Leadership Roles	Students
Facilities	Parent Involvement	Other factors
Goals	Skills	

- Effective and less effective schools both have "central actors" or "key players" who interact. These include:

School staff	Parents	Facilities
Students	Community	

- Effective schools research has been primarily descriptive and thus does not determine cause and effect. It does not, for example, tell us whether the effective teacher creates the effective school, or whether the effective school influences the teacher to behave in effective ways. It seems likely that there are multiple combinations of interaction of actors and factors that improve effectiveness in various environments.

- Effectiveness research is reported in terms of commonalities of effective schools (i.e., those that provide quality education).

In general, the same characteristics that correlate with effective schools also correlate with corporate effectiveness. These characteristics

are similar to the "Lessons from America's Best-Run Companies," which are discussed in Peters and Waterman's widely read and often quoted In Search of Excellence (1982). However, in that work as well as in effective schools literature, there is no discussion of how a company can develop the attitudes, skills, knowledge, and conditions needed for excellence/effectiveness. There are, however, strong clues. An executive of one successful company told Peters and Waterman:

> Our emphasis on human relations was not motivated by altruism but by the simple belief that if we respected our people and helped them to respect themselves, the company would make the most profit (p. 259).

This respect for people is a necessary ingredient in setting a climate for the development of human resources. Only a minority of corporations have adopted this new philosophy, but many are trendsetters in management strategies. Among them are General Electric, IBM, General Motors, Ford, Mobil, TRW, GTE, and Chase-Manhatten. Human resource managers in these companies stress training for managers and supervisors in techniques for developing the right climate for productivity (Business Week, December 2, 1985).

In schools, all staff members have important parts to play in establishing and maintaining a climate for teaching and learning. And, as in the private sector, training for these roles is necessary. To improve the system, all staff need to participate in staff development. While training alone cannot maximixe productivity, it is clear that staff development is crucial to school improvement efforts (McLaughlin and Marsh, 1978).

Not all corporate training is appropriate for schools. Business and industry have profited from public education by borrowing those staff development practices and research outcomes that could be adapted as part of corporate staff training. And, in turn, corporate inservice practices and research may have elements that can be used to benefit schools. (Bassin, 1982; Dierdorff, 1984; Etzione, 1984; Owens, 1984; Eurich, 1985; and George, 1985). This seems particularly appropriate during a period in

which business and industry have relatively more resources for staff development than do schools. Collaborative staff development is discussed in Section II.D Assistance to Teachers, Administrators, and Other School Staff.

In an ERIC review of the literature regarding corporate involvement in education, Francie Gilman noted: "Today, educators and corporate executives are under more pressure than ever before to find ways to work together to solve problems" (Gilman, 1984). But when Gilman listed the principal areas in which businesses aided public schools, the relatively narrow range of the efforts are evident. Gilman's finding supports that of Project WISE staff in its 1983 review of the literature:

> Most business contributions to schools have been in the nature of executives doing voluntary consulting work, funding other consultants and short-term programs for students, and most often, providing funds, advice, and course-related job experience for career and/or vocational education courses. A literature search for school-business relationships brings in more sources on vocational education and the transition of youth from school to work place than any other topics. The literature includes little information on adapting business training practices for use with school staffs except with regard to vocational training (King, December 1983).

Nearly all business assistance to education has been in the nature of funds and equipment to higher education agencies (Council for Financial Aid to Education, 1983) and school-to-work transition programs (Gilman, January 1984, and WISE, December 1983). In a September 1983 forum to explore national policy and HRD, members of Congress, corporate representatives, and prominent economists reached a "consensus that better education-work partnerships are needed, but both sides would have to see the benefits" (ASTD, September 1983, p. 3).

It appears, however, that the private sector is at least as concerned about academic preparation as vocational preparation. Clearly, though, previous efforts have not been sufficient. For example, students' performance levels on mathematics and science achievement tests have declined, especially in high schools. Among the causes for this, according to a National Science Foundation report (1983), are the following:

- Few teachers have had formal preparation to give students an understanding of modern technology.

- Teachers have very limited opportunities to update their skills.

- Generally, K-12 instruction in science, mathematics, and technology has not taken advantage of advances in instructional technology and behavioral sciences of the past 20 years.

Interest in private sector-public school partnerships is growing, and so is the pressure for schools and businesses to collaborate. Encouragement comes from the public and private sectors, including such national groups as the President's Task Force On Private Sector Initiatives and the insurance industry's Center for Corporate Public Involvement. But school and business partnerships also require local support. It seems apparent that more schools and businesses would enter partnerships with each other if there were guidelines and models for effective local collaborative efforts. Unless such models and guidelines are readily available, school and private sector partnerships may be perceived by educators as "very difficult and time-consuming" (Loucks-Horsley, 1984).

The general trend of school-business collaboration literature during the 1980s has been to become broader rather than deeper. That is, more is being written about the potential of such cooperative school improvement enterprises (as examples: Boyer, 1983; Ruffin, 1983; Dierdorff, 1984; and Cetron, 1985) than is written about how to implement them. Some of the recent literature has provided depth. Michael Timpane (February 1984), for example, examines the rationale for business's "rediscovering" the public schools and suggests some problems and opportunities this may present. David S. Seeley (1984) also discusses some of the issues that educators must face and suggests some ways to resolve them. Increasing numbers of articles discuss a kind of "culture clash" between education and business and offer ways to find common ground (Wise, 1981; Deaton, 1982; Ozmon, 1982; Durenberger, 1983; NEA, 1983; Levine, 1985). Recent case studies of local school-business partnerships provide information that should be useful for avoiding and/or solving problems related to collaboration (National School Volunteer Program, 1981; and Green and Brede, 1983). One research study (Mann, September 1984) on school/business partnerships

indicates that the development of mature, sophisticated relationships is usually hampered by five problems:

- o few school/business projects deal with classroom teaching or attempt to determine whether schools successfully educate children;
- o most business activities in schools are brief and episodic rather than enduring;
- o business often targets specific schools instead of studying system-wide possibilities;
- o projects with narrow purposes can lead to trivial results and
- o small projects with limited objectives and low levels of investment can risk serious disappointment in results.

Mann concludes that school/business partnerships "can be considered grown up when they result in a school chief approaching a state legislature with some powerful allies--say, three chief executive officers, a bank president, a Chamber of Commerce executive, and the chairman of the downtown civic association."

The most detailed descriptions of partnerships for school improvement are the reports and other products of the local projects. For example, in Dallas, where experience in school and business partnerships dates from 1965, its Business Community and the Public Schools: A Dynamic Partnership (Dallas Chamber of Commerce/Dallas Independent School District, 1979) contains information about a broad array of partnership projects developed there. For smaller cities, the Jackson, Mississippi Adopt-a-School's Developing Partnerships: A Handbook for Effective Adopt-a-School Programs (Jackson Municipal Separate School District, 1983), well represents a vital and growing program.

Some information about local programs is provided by the National School Volunteer Program (NSVP) in its monthly newsletter, The Volunteer in Action. It provides news about volunteer activities in individual schools and districts, as well as about national issues that affect local programs. The NSVP has also developed strategies for planning and implementing community volunteer programs for public schools (NSVP, 1981

and 1983; Gray, February 1984). Although it is concerned primarily with individual volunteers in classrooms, the NSVP newsletter has recently contained some information about partnerships.

Common themes through the partnership literature of the 1980s are: (1) the need to initiate additional collaborative projects, and (2) the need for more information with regard to making such efforts more effective (see also Hord, February 1986). The Southwest Educational Development Laboratory's Models and Guidelines for Partnerships in Education (King, 1985) focuses on meeting both of these needs.

After needs-sensing activities in 1982, SEDL began the Ways to Improve Schools and Education (WISE) Project to examine school and business/community partnership efforts in its six-state region (Arkansas, Louisiana, Mississippi, New Mexico, Oklahoma, and Texas). The National Institute of Education funded WISE to work with three sites, Albuquerque, Austin, and Oklahoma City, from 1983 through 1985. Three more sites, Little Rock, Jackson, and New Orleans, were added in 1985.

Project WISE conducted pilot testing of collaborative school-business partnership efforts in the six sites. At each site, a Liaison Team was organized, consisting of representatives from the school district, a collaborating business or chamber of commerce, and institution of higher education, the state education agency, and SEDL.

One focus of Project WISE was to enhance school staff knowledge and skills through partnership efforts that provide for staff development and inservice education. Successful training was provided by and adapted from business and industry and other local resources. In Section II.D there is more detail about using collaborative training for developing human resources.

Project WISE site Liaison Teams also accomplished the following: (1) identified and prioritized issues in school-business collaboration, (2) drafted guidelines to resolve these issues, and (3) developed Context and Strategic Models for implementing collaboration. These accomplishments led

to the development of the Models and Guidelines for Partnerships in Education (King, 1985).

There is no one best way to design and implement partnerships. But research-based operational models and guidelines can help local groups and organizations collaborate more effectively in organizing and carrying out a partnership based on their community's conditions and school needs. The Models and Guidelines represent a translation of research into practice, a practical tool to facilitate effective school-community partnerships that help meet school needs.

REFERENCES FOR INTRODUCTION AND OVERVIEW

American Society for Training and Development. Human Capital Developments, Volume 2, Number 4, December 1983.

American Society for Training and Development. Senior HRD Manager Forum, September 15, 1983: "National Tax Policy and Human Resource Development."

Bassin, Marc. "Three Major Strategies for Large Schools' Experience." Paper presented at the American Educational Research Association Annual Meeting, New York, March 1982.

Bhaerman, Robert D. "Career Education and the Private Sector." Journal of Career Education, September 1983.

Boyer, Ernest L. High School: A Report on Secondary Education in America. New York: Harper & Row, 1983.

Business Week. "Human Resource Managers Aren't Corporate Nobodies Anymore." December 2, 1985.

Carnevale, Anthony Patrick. Human Capital: A High Yield Corporate Investment. Executive Summary, National Issue Series. Washington, D.C.: ASTD, 1982.

Cetron, Marvin, et al. Schools of the Future: How American Business and Education Can Cooperate to Save Our Schools. New York: McGraw-Hill Book Company, 1985.

Council for Advancement and Support of Education. "Voluntary Support of Education." 1978. ED 206 205.

Council for Financial Aid to Education. Annual Report, 1982. New York: CFAE, 1983.

Dallas Chamber of Commerce and Dallas Independent School District. The Business Community and the Public Schools. September 1979.

Deaton, William L. "Corporate Support for Public Education: The Yazoo City/Mississippi Chemical Corporation Experience." Paper presented at the Annual Meeting of the American Educational Research Association, New York, March 1982.

Dierdorff, William H. "Business-Advisory Task Force Helps School Solve Problems." School Business Affairs, Vol. 50, No. 7, July 1984.

Durenberger, David, Michael Timpane, and Barbara P. Wyatt. "Private Sector Initiatives in Education: Eliminating Barriers to Cooperation." NASSP Bulletin, Vol. 67, No. 462, April 1983.

Edmonds, Ronald. "Effective Schools for the Urban Poor." Educational Leadership, October 1979.

Elsman, Max, and the National Institute for Work and Learning. Industry-Education-Labor Collaboration: Action Guide for Collaborative Councils. Washington, D.C.: Industry-Education-Labor Collaboration Project (IELCP), Center for Education and Work, National Institute for Work and Learning (NIWL), 1981. ED 206 907.

Epps, Edgar G. "The Impact of School Desegregation on the Self-Evaluation and Achievement Orientation of Minority Children." Paper presented at the national conference, From Desegregated Schools to Integrated Education, Milwaukee, Wisconsin, July 9-13, co-sponsored by the Urban Educational Program, CEMREL, Inc. and the Milwaukee Public Schools.

Etzioni, Amatai. Self-Discipline, Schools, and the Business Community. Washington, D.C.: National Chamber Foundation, 1984.

Eurich, Nell P. Corporate Classrooms: The Learning Business. Princeton, New Jersey: The Carnegie Foundation for the Advancement of Teaching, 1985.

Fraser, Bryna Shore, et al., and the National Institute for Work and Learning. Industry-Education-Labor: The Literature of Collaborative Councils. Washington, D.C.: IELCP, Center for Education and Work, NIWL, 1981. ED 206 906.

George, Paul S. Theory Z School: Beyond School Effectiveness. Columbus, Ohio: National Middle School Association, 1985.

Gilman, Francie. "The Effects of Corporate Involvement in Education." ERIC Digest, January 1984.

Gray, Sandra T. "How to Create A Successful School/Community Partnership." Phi Delta Kappan, February 1984.

Green, Alan C., and Diane F. Brede. "Collaborating: Improving Local Public Schools and Schooling," an unpublished report to the Charles F. Kettering Foundation (Dayton, Ohio), 1983.

Hord, Shirley M. "A Synthesis of Research on Organizatinal Collaboration." Educational Leadership, February 1986.

Intriligator, B. A. "New Ways to Planning for New Realities: The Collaborative Option." Paper presented at the American Educational Research Association Annual Meeting, 1982.

Katz, Douglas S. "Planning to Use Volunteers." VocEd, April 1983.

Katz, Irwin. "Review of Evidence Relative to Effects of Desegregation on the Intellectual Performance of Negroes." American Psychologist, Vol. 19, 1964.

King, Al. "Education and Private Sector Collaboration to Help Meet School Staff Development/Inservice Education Needs." Executive Summary. Austin, Texas: Southwest Educational Development Laboratory, December 1983.

King, Al. Models and Guidelines for Partnerships in Education. Austin, Texas: Southwest Educational Development Laboratory, 1985.

Kirk, Diana, and Susan Goon. "Desegregation and the Cultural Deficit Model: An Examination of the Literature." Review of Educational Research, Vol. 45, No. 4, Fall 1975.

Lacey, Richard A. Becoming Partners: How Schools and Companies Meet Mutual Needs. Research Report 83-33. Washington, D.C.: National Commission for Employment Policy, 1983.

Levine, Marsha (Ed.). The Private Sector in the Public School: Can It Improve Education? Washington, D.C.: American Enterprise Institute for Public Policy Research, 1985.

Levitt, Arthur, Jr. "Public Education and Business: Toward a Working Partnership." An address to the Public Education Association, New York, November 4, 1981.

Levitt, Arthur, Jr. "Public Education and Business: Toward a Working Partnership." An address to the Public Education Association, New York, N. Y., November 4, 1981.

Loucks-Horsley, Sue. "AERA Special Interest Group - Research Utilization Meeting." American Educational Research Association Annual Meeting, April 23, 1984.

Mann, Dale. All that Glitters: Public-School/Private Sector Interaction in Twenty-Three U. S. Cities. A report prepared for the Exxon Foundation. New York: Teachers College, Columbia University, September 1984.

McElroy, Jack E., and Edward G. Thomas. The Impact of Kentucky's Staff Exchange Program Final Report. Frankfort: Kentucky State Department of Education, 1981. ED 200 801.

McLaughlin, Milbrey Wallin, and David D. Marsh. "Staff Development and School Change." Teachers College Record, Columbia University, Vol. 80, No. 1, September 1978.

National Association of Social Workers. The Human Factor: A Key to Excellence in Education, n.p., 1985.

National Education Association. "Adopt-a-School: Cooperation or Co-optation." Shirley J. Hansen, Patricia Browne, and Howard Ozmon, presenters, in Report of the Twenty-First Annual NEA Conference on Human and Civil Rights in Education, Washington, D.C., February 25-27, 1983.

National School Volunteer Programs. Creating and Managing a Corporate School Volunteer Program: A Manual for Program Directors. Alexandria, Va.: NSVP, Inc., 1983.

National School Volunteer Programs. Partners for the 80's: Business and Education. Alexandria, Va.: NSVP, Inc., 1981.

National Science Board Commission on Precollege Education in Mathematics, Science and Technology. Educating Americans for the 21st Century: A Report to the American People and the National Science Board. Washington, D.C.: National Science Foundation, September 1983.

Owens, Thomas R. "A Framework for Improving Excellence in Education: Applying In Search of Excellence." The School Administrator, December 1984.

Ozmon, Howard. "Adopt-A-School: Definitely Not Business As Usual." Phi Delta Kappan, Vol. 63, No. 5, January 1982.

Peters, Thomas J., and Robert H. Waterman, Jr. In Search of Excellence: Lessons from America's Best-Run Companies. New York: Harper & Row, 1982.

Peters, Tom, and Nancy Austin. A Passion for Excellence: The Leadership Difference. New York: Random House, 1985.

Research and Forecasts, Inc. "U. S. Education System Is Major Concern for Business." Business Poll, Fall 1983.

Ruffin, Santee C. School-Business Partnerships: Why Not? Reston, Va.: National Association of Secondary School Principals, 1983.

Schilit, Henrietta, and Richard Lacey. The Private Sector Youth Connection, Volume 1: School to Work; A Planning Manual for Educators and Business People. New York: Vocation Foundation, Inc., 1982.

Seeley, David. "Educational Partnership and the Dilemmas of School Reform." Phi Delta Kappan, February 1984.

St. John, Nancy Hoyt. "Desegregation and Minority Group Performance." Review of Educational Research, Vol. 40, February 1970.

Timpane, P. Michael. "Business Has Rediscovered the Public Schools." Phi Delta Kappan, February 1984.

Weinberg, Meyer (Ed.). Research Review of Equal Education, Vol. 1, No. 1, Winter 1977. Center of Equal Education.

Weinberg, Meyer. Minority Students: A Research Appraisal. Washington, D.C.: National Institute of Education, 1977.

Westbrook, John D. "Considering the Research: What Makes An Effective School?" Austin, Texas: Southwest Educational Development Laboratory, 1982.

Wise, Robert I. "Schools, Businesses, and Educational Needs from Cooperation to Collaboration." Education and Urban Society, November 1981.

Youngs, Bettie B. "18 Reasons Why Leaders in Business and Education Should Work Together." NASSP Bulletin, Vol. 67, No. 466, November 1983.

II. THE PURPOSES OF PARTNERSHIPS (HOW TO HELP STUDENTS)

School and business partnerships are intended to help improve the quality of education. And regardless of how global or specific a partnership's goals are, the educational improvement must take place at the individual student level. Partnership efforts to improve education for students may be viewed in terms of four general approaches for business involvement. Business may provide or help provide:

1. Enrichment experiences for students
2. School-to-work preparation for students
3. Incentives/Equal educational opportunities
4. Assistance to teachers, administrators, other school staff, and/or the school board in improving education

A. ENRICHMENT EXPERIENCES FOR STUDENTS

Educational partnerships provide a variety of enrichment experiences --at classroom, building, and district levels--for a variety of academic level students. Some participants in the partnerships advocate programs that make education work for each student. For example, Frank Elliott, a high school principal in Springfield, Virginia and a long-time advocate for public/private sector partnerships, urges the development of educational programs that enhance the opportunities for success for all students. This does not mean that one partnership should try to meet the needs of all students. But rather that there be many partnerships to meet the diverse needs of all students (Elliott, April 1983).

1. Disadvantaged Students

Businesses have entered into adopt-a-school and other types of partnerships with schools to help the educationally disadvantaged. Some of these efforts began during early school desegregation. Many businesses "adopted" schools with minority children in lower socio-economic circumstances. The private sector also assisted with establishing magnet programs in math and science, fine arts, and other special programs in

predominantly minority schools to serve minority students already there, as well as to attract white students to those schools in order to desegregate them. Today partnerships in many school districts are providing a variety of enrichment programs for disadvantaged students.

Like partnerships for other purposes, the scale of the projects and programs to enrich learning opportunities for educationally disadvantaged students vary from small to large. For example, efforts to improve their reading skills vary from individual student level or classroom level to nation-wide. Some businesses help sponsor reading enrichment programs such as Reading is FUNdamental (RIF) all over the country. Pizza Hut is piloting its own nation-wide reading program that emphasizes partnerships between student, teacher, and parent, as well as the company. B. Dalton Booksellers, the largest bookstore chain in the nation, has supported literacy and reading projects in 40 communities in 10 states since 1977. Many smaller businesses sponsor reading enrichment programs or projects at the local level. Dairy Queen in Oklahoma City supports reading programs in each of the city's schools, elementary through high school. But many partnership efforts involve only one or a few business employees, sometimes a chief executive officer, who tutor one or a few students.

It is important to remember that any size partnership can be successful in helping to enrich education. In Dothan, Alabama, individual employees of local businesses can work in any of seven schools to help individual students with homework, reading, arithmetic, language, and "basic life styles." The Regional Transit Authority in New Orleans is providing students in one local high school with the opportunity and necessary computers and training to revise the city's transportation routes so that they provide public bus service to the school, a service not previously available.

The "Boston Compact" is a long term, city wide effort to improve the quality of all the city's high schools. The compact is between the public schools, the business community, and local colleges and universities. The school district agreed to improve attendance rates, reduce drop-out rates, increase student competence in reading and math, and improve college and

job placement rates. The businesses agreed to give hiring priority to Boston students upon their graduation. The higher education agencies agreed to enroll 25% more of the public school graduates. The colleges, universities, and businesses contribute human and tangible resources to the school improvement effort (Caradonia and Spring, April 1983).

2. Gifted and Talented

Since 1978 the North Carolina School of Science and Mathematics has "been attempting to close the gap between the acceleration of science and technology and the decline in scientific understanding" among the general population. Corporation grants, as well as state legislative appropriations, enable the school to carry on its program to enrich education in the state's public school (Jackson and Eilber, Fall 1983).

Many of the enrichment programs for gifted and talented students are in the fields of science, math, and new technologies. Like many other states, Texas provides several examples of programs. The Shell Oil Corporation Development Division, for example, sends its high level technical and computing staff to teach in a Houston high school Vanguard Program for the Gifted. One of the students reported that the volunteer instructors stretched the students beyond what the regular teachers did (Boyer, 1983). In another Houston program, "highly gifted and talented college-bound youth, who may want to major in engineering or science, receive superior academic preparation at the High School for Engineering Professions" (Marshall, Fall 1983). Austin area high technology businesses, along with Texas A & M University, assisted local school staff in planning and developing the Austin Science Academy, which opened in August 1985 with 200 students.

Futurist Marvin Cetron, in How American Business and Education Can Cooperate to Save Our Schools (1985), predicts that the curriculum of the year 2000 will allow gifted and talented students to move at exceptional rates through independent study programs on into universities, and implies that there may be a danger of focusing too narrowly on mathematics, science, and technology. Presently there are gifted and talented programs

in other fields. The Houston School for Engineering Professions also offers strong courses in communication skills and the humanities "to prepare its students equally well for careers in law, medicine, business, or computer science," as well as in engineering (Marshall, Fall 1983). And in Dallas there are eight specialized magnet high schools that are serving students other than the gifted and talented. And the Talented and Gifted Magnet School offers courses in areas other than mathematics and science. These areas include Latin, French, and Spanish, interdisciplinary courses in combined English and Social Studies, and computer literacy (Dallas Independent School District, 1985).

3. All Students

Specialized magnet schools can be used to enrich the education of average students also. In addition to the Talented and Gifted School, the Dallas Independent School District offers seven other magnet high schools. These include the Science/Engineering Magnet, the Arts Magnet, the Business and Management Center, Education and Social Services Magnet, the High School for Health Professions, the Humanities/Communications Magnet, and the Center for Public Services: Government and Law. In addition to the special courses offered in these schools, students there have options of taking regular or honors academic classes in the magnet or regular high schools. The private sector contributes to all of the magnet schools (Dallas Independent School District, 1985).

Curricula piloted in programs for gifted and talented students of magnet schools have also been adapted for the general student population. But enriched educational opportunities for all students need not depend solely on specialized schools. In 1980, the Health Futures Institute, a non-profit partnership, was funded by Medtronic and the county government in the St. Paul and Minneapolis area. Medtronic, which manufactures heart pacemakers and other medical devices, contributes $45,000 to $50,000 each year to support the Institute. The Institute, working with funds from other companies and foundations, collaborated with the University of Minnesota to develop an elementary school health program. In 1983, the program was tried in four area school districts, two of which are small and

rural. In its first year, the program altered students' behavior positively in all four schools (Education Council, Greater Minneapolis Chamber of Commerce, 1984).

The Detroit Public Schools' Community High School was established to provide a variety of special enrichment courses to supplement regular courses taken by high school students throughout Detroit. The program of the school provides two types of curriculum: (1) courses that focus on major ideas and concerns relevant to the urban setting of Detroit, and (2) city-wide courses not usually available at the neighborhood school because of lack of enrollment. The Community High School utilizes local resources available from Wayne State University and the community (National Urban Coalition, July 1980).

A local business can take the initiative to improve schools. The Mississippi Chemical Corporation (MCC) draws heavily on Yazoo City's population for employees but has had to recruit chemists, tax specialists, and accountants from outside their area. Because of the poor quality of the schools, the company experienced difficulties in finding educated employees locally and in recruiting and holding qualified staff from outside the community. But the school board, concerned about compromising its autonomy, refused MCC's offers of financial aid to upgrade education.

Eventually, the business and the board agreed on the formation of visiting study teams composed of teachers, administrators, state education agency staff, and university faculty members. One team studied grades 1-6, and another studied grades 7-12. The team members' honoraria and expenses were paid by MCC. The teams studied the schools and submitted reports including observations of quality as well as needs and recommendations. Results of the collaborative effort included: (1) creation of a position of assistant superintendent for curriculum and instruction, directly funded by MCC, (2) formation of local task forces to make additional recommendations to the superintendent, (3) organization of a community relations program sponsored by MCC, and (4) establishment of an MCC education foundation to fund community and school improvement projects (Deaton, November 1982).

B. SCHOOL-TO-WORK PREPARATION

There is more information about school-to-work preparation and transition for students than for other partnership purposes. One reason for this is a longer history of business involvement in career and vocational education. But there is another reason for the recent increase in the numbers of school and business partnerships to better prepare youth for work. Many employers and entire communities have become concerned about large and growing numbers of youth and young adults who are unemployable or under-employed.

In some sections of Albuquerque in 1979, the unemployment rate for youths, ages 16-20, was 75%. Working with a grant from the Edna McConnel Clark Foundation, Albuquerque education, business, and other community leaders established the Career Guidance Institute (CGI). The Albuquerque Chamber of Commerce oversees CGI's activities and provides offices for most of its paid staff. But CGI-paid facilitators are maintained in the school and work closely with the school teachers, counselors, and administrators.

CGI began its activities in three schools in the 1980-1981 school year, Valley High School and two of its feeder schools, Garfield Middle School and Taft Middle School. CGI provided those school staffs with professional development programs to increase their knowledge of private sector work and career needs and opportunities. Activities provided by CGI include:

- Lectures and presentations by private sector representatives
- Retreats and workshops where teachers plan how to incorporate career education into their curricula
- "Shadow Days" in which teachers spend a day "looking over the shoulder" of an employee and vice versa
- A University of New Mexico course on how to improve career guidance and career education in the schools
- Summer jobs for teachers to work in the private sector, to provide information that can be passed on to students during the next school year

- Tours of businesses where teachers meet and talk with employees who use the skills that relate to the teachers' classes

An external evaluator of these and other early CGI activities, noted positive results in student behavior and teacher and other staff reports and provided feedback for improvements in the program (American Institutes for Research, January 1982). The improved CGI program was so successful that it was extended to other Albuquerque schools and added a Join-a-School and other partnership activities not related to just school-to-work in order to improve education for more students. In 1983 the Clark Foundation provided funds for the production of School-Work Action Programs: A Replication Guide (American Institutes for Research, 1983) based on the successes of Albuquerque's CGI and other cities' programs.

Albuquerque's Career Guidance Institute is one of a number of partnership school-to-work projects that expanded its scope to more general school improvement. During the summer of 1985, 80 teachers and other staff members of Albuquerque schools participated in CGI's summer work program. They not only earned money, they increased their understanding of the private sector and some developed their professional skills in mathematics, science, technology, communications, problem-solving, decision-making, time management, and human relations and other human resource development areas.

The Rexnord Corporation in Milwaukee began its Teacher/Business Program in 1979. It focuses on one partnership effort related to preparing students for work. It provides teachers with summer jobs in Rexnord plants and offices. These are real jobs with salaries for five to six weeks. There are no lectures about the free market system or company propaganda. Jobs are in areas such as market research, personnel, advertising, and purchasing related to Rexnord's manufacturing of industrial components and machinery. Most of the teachers report that they had no idea that the experience would be so interesting or so useful in their classes. The program was so successful that in 1980 it was expanded to three other cities where Rexnord operates plants, Springfield, Massachusetts and Louisville and Danville, Kentucky (Erwin, April 1982). The company has produced a how-to booklet, "Teacher/Business Program: Activate Someone,"

and "has responded to thousands of requests for information." (Rexnord, 1985).

Many other school-to-work programs work more directly with students. Local companies in Philadelphia collaborate with public schools there to operate a replicable program that moves simulated work places into four high schools. Each year 550 disadvantaged, potential dropouts are taught skills in electrical and automotive repair and business office work linked to academic skills. The Superintendent of the Washington, D.C. schools has enlisted the substantial help of several hundred area businesses. Career training programs under corporate sponsorship are offered at five city high schools. General motors, IBM, and the Potomac Electric Power Company co-sponsor an engineering program. Local banks sponsor a program in business and finance. George Washington University sponsors a health science program.

Some programs are state-wide. For example, the Mississippi Department of Education is establishing Business/Industry/Education Councils throughout the state and has published "A Partnership for Mississippi's Future: Handbook for Business/Industry/Education Partnerships" (1984; and Anderson, 1985). The focus of the project is the development of community, regional, and state-level mechanisms to serve as the connecting link between work and the classroom.

REFERENCES FOR THE PURPOSES OF PARTNERSHIPS: ENRICHMENT AND SCHOOL-TO-WORK

American Institutes for Research. A Cooperative Effort of the Greater Albuquerque Chamber of Commerce and the Albuquerque Public Schools for Developing Life Preparation Skills Through a Career Guidance Process. Palo Alto, California: American Institutes for Research, January 1982.

American Institutes for Research. School-Work Action Programs: A Replication Guide. Palo Alto, California: American Institutes for Research, 1983.

Anderson, Rita B. "B/I/E Coordinates Business Aid to Schools." Mississippi Business Journal, January 1985.

Boyer, Ernest. High School: A Report on Secondary Education in America. New York: Harper & Row, 1983.

Brody, Michael. "Meet Today's Young American Worker." Fortune, November 11, 1985.

Butler, Owen B. "Why Johnny Can't Get a Job." Fortune, October 28, 1985.

Caradonia, James, and William Spring. "The Boston Compact." VocEd, April 1983.

Cetron, Marvin, et al. Schools of the Future: How American Business and Education Can Cooperate to Save Our Schools. New York: McGraw-Hill, 1985.

Dallas Independent School District. Magnet High Schools, 1985.

Deaton, William L. "Corporate Support for Public Education: The Yazoo City/Mississippi Chemical Corporation Experience." Paper presented at the Annual Meeting of the American Educational Research Association, New York, November 1982.

Elliott, James A. et al. "Private Sector Initiatives in Education: Education Concerns about Business." NASSP Bulletin, April 1983.

Erwin, Carol J. "Rexnord's Teacher/Business Program Fosters Mutual Understanding." Phi Delta Kappan, April 1982.

Gold, Gerald G. "Career Education and Collaborative Councils: Two Powerful Ideas." Journal of Career Education, June 1983.

Greater Minneapolis Chamber of Commerce. Assignment: Improving Education; A Report on Business/Education Partnerships in the Twin Cities. Minneapolis: Education Council, Greater Minneapolis Chamber of Commerce, October 1984.

Jackson, Cynthia L., and Charles R. Eilber. "Mobilizing Industrial Partnerships to Enrich Science and Mathematics Education." Educational Horizons, Fall 1983.

Koning, Hendrik B. "High School Academics Bring Inner-City Youth Into Mainstream." VocEd May 1983.

Marshall, Larry. "Tomorrow's School Today." Educational Horizons, Fall 1983.

Mississippi State Dept. of Education. Business-Industry-Education: A Partnership for Mississippi's Future, ca., 1984.

Schilit, Henrietta, and Richard Lacey. The Private Sector Youth Connection, Volume 1: School to Work; A planning Manual for Educators and Business People. New York: Vocation Foundation, Inc. 1982.

C. INCENTIVES AND EQUAL EDUCATIONAL OPPORTUNITY FOR STUDENTS

A review of information regarding educational quality and equality of opportunity leads to the conclusion that both are imperative to the well-being of the United states and its communities. Amitai Etzioni (1984) has summarized it this way:

> "For a variety of reasons, and after an abundance of signals, parents, teachers, employers, social commentators, business leaders, elected officials, and representatives of a wide range of public and private institutions and organizations pronounced their concern that the American educational system was not performing in a way that best served the present and future needs of America."

But among those who urge changes in education, there is disagreement about what should be done. Even among strong advocates for greater educational equity, there have been differences of opinion about what to do. Meyer Weinburg (Winter-Spring, 1983) concluded that although it had been "a struggle every inch of the way" and that the gains were restricted primarily to basic skills, minority students were receiving an "improved education." To Weinberg, the best course would be to defend the gains from those who would take them away.

José A. Cárdenas, however, has not detected that much improvement. He takes issue with the highly publicized national reports during the first half of this decade, because, he said, they assumed that equal educational opportunity had been achieved. Not true, said Cárdenas. Citing statistics compiled by the National Coalition of Advocates for Students, he said that almost 300,000 children between the ages of 6-14 were not even enrolled in school, only 72% of students were graduated from high school, and only one-third of all limited English or non-English-speaking students ages 5 to 14 are provided with any special language services that were due them. And problems were being made worse because education budgets were shrinking. Cárdenas also voiced his concern about the inequities inherent in school

funding systems that discriminated against poorer districts. The implications of this are made worse, said Cárdenas, by the increasing importance of providing opportunities for students to become skilled in using high technology (February 1983; August 1983; April 1984; September 1984).

Cárdenas is one of numerous equal education advocates who have expressed great concern over what they perceive as a growing gap between some students and others with regard to learning computer and other high technology skills. Some predict that unless this discrepancy is addressed, the United States will rapidly become a clearly divided two class society. Roy Forbes, former associate executive director of Programs of the Education Commission of States, saw this as one of several adverse consequences for not improving education for all students. There would also be dangerous effects in the nation's economic, political, and military well-being. An increasing public concern over these dangers has made quality and equality in education major issues on the national agenda.

One strand of the debate is over the compatibility of quality and equality in education. There are no strong voices actually calling for discrimination against females, minorities, and poor, or for schools to focus on providing a superior education for middle- and upper-class white males. But, for example, the Twentieth Century Fund Task Force report, Making the Grade (1983) is explicit in its assertion that emphasis on equality has led to a decline in quality. And some equality advocates are convinced that some quality advocates are using the bandwagon for educational excellence to crush a faltering movement for educational access. Or, at least they are supplanting one by the other. Floretta McKenzie, Superintendent of Washington, D. C. schools, put it succinctly when she told the recent National Parent-Teacher Association conference: "Some folks have been so caught up in excellence they forgot about equity"(Education Daily, March 1, 1985).

There seems to be a growing coalition for both excellence and equity, that there need not, or indeed cannot, be one without the other. For example, the influential College Board with a membership of 2,500 colleges,

schools, school systems, and education associations, established the Educational Equality Project in 1980. The project is now mid-way through its 10-year effort to strengthen the academic quality of secondary education and to ensure equality of opportunity for post-secondary education for all students. For another example, the theme of the 1985 National PTA Conference was "Excellence and Equity: The Agenda for Child and Youth Advocacy." At this conference, Hillary Rodham Clinton, first lady of Arkansas, told the PTA conference that the "excellence movement, if done properly, can ensure equity." Clinton, who has long been active in school improvement and is chair of the Arkansas Educational Standards Commission, said further: "If we do not have standards of excellence, we cannot have equity" (Education Daily, March 1, 1985).

"Computer" is the catch-word for almost all technology today; its uses now and its opportunities and challenges in the future figure prominently in the educational quality and equity issues. The question of whether women and minorities have equal opportunity to learn about the intricacies of the microcomputer, the symbol of advancement into the future, has become a central issue in itself. The "computer gap," as Harold Hodgkinson of the Institute of Educational Leadership called it, is wide and may well be becoming wider. Like many others who examined the problem, Hodgkinson said it is two-fold: (1)computers are in schools, but the schools with more minority and/or lower social status students tend to have fewer computers; (2) computers are in homes, but most are in middle- and upper-income families (American Council Of Life Insurance, 1983).

A 1983 survey by Market Data Retrieval indicated that 50% of the nation's 82,422 school buildings were using computers that year and that this was a 56% increase over the previous year. Whether a student and teacher could use one of these computers might depend on whether they were in a large, wealthy school or at a poor, small one. A report from the study noted that of the 2,000 largest, richest schools, 80% had instructional computers. In the smaller, poorer schools, the rate was only 40%. The pattern was the same for all levels of schools, elementary, junior high, and high schools (Education USA, January 10, 1983). According

to a 1983 report from the Law and Education Center of the Education Commission of the States, predominantly minority schools are more likely to use computers for only remedial drill and practice, whereas other schools are more likely to use them to develop higher order skills and a variety of other uses (Summer 1983).

Reports from studies of the use of computers for learning indicate that they are superior to traditional modes of instruction. James Kulik, Director of the University of Michigan Center for Research on Learning and Teaching, reported that children using a computer learn slightly better, like it more, and cover the same material in half the time, compared to traditional methods. Students who have computers at home as well as at school have a considerable advantage compared to students with no access to computers. The National Center for Family Studies (April 1983) called the home computer a unique tool for "family empowerment."

Joseph Giacquinta, director of a New York University study of New England families with home computers, reported that they sometimes caused conflict between home and school. The families want to give their children an educational advantage. Some of their teachers perceive this as an unfair advantage over children with no computer at home. In one case, the teacher prohibited a student from doing homework on a computer because other students did not have one. Her parents told the student to ignore the order (Science News, September 22, 1984). Other computer experts have echoed Giacquinta's findings (Education Daily, September 14, 1984).

Access to home computers among low income, minority students significantly does improve their educational skills and their enthusiasm for learning. A study, conducted by Margot Ely at New York University, involved 46 low-income, minority students ages 7 to 14 using computers donated by the head of CIE Industries. To measure home computers' impact, 22 students used them only in the classroom, while 24 students were also given computers to use in their homes.

Results of the study showed that access to home computers also increased the low-income, minority students' hopes for a better life.

Further, these students had a better attendance rate in classes at the summer camp school where the study took place. They attended 77% of the time, and their peers attended only 47% of the time. The report said that the home computer students and their parents voiced tremendous faith that computers would have a positive effect on students' academic accomplishment and future professional lives (Ely, November 1984).

Within ethnic groups, female students are less likely to have experience with computers than male students. National Assessment of Educational Progress reports (Spring 1984) show that there is a marked difference in achievement between older boys and girls in mathematics courses needed for technology related careers. These differences are of concern to all who believe that the welfare of the country depends on effective development of all human resources, as well as to advocates for equal educational opportunity. Lack of educational opportunity has been identified as one major factor in the "Underclass and Feminization of Poverty." For millions of people, mostly women with children, work has not offered an escape from poverty because of low earnings. As part of their Trend Analysis Program, the American Council of Life Insurance found that as long as women are concentrated in low-paying occupations, female-headed families will face serious economic problems and even deprivation. (March 1984) Writing in the Office for Civil Rights Journal, James P. Johnson put it bluntly: "If blacks and women cannot interface with computers, they cannot function in a complex world" (Fall, 1982).

Predictions are that by 1990, 9 of every 10 women in the United States will be working outside the home. But there are signs that females are not being prepared to contribute fully to the nation's cause in an increasingly competitive international trade market or to gain their share of income in a technological and information related economy. Males outnumber females two to one in high school computer courses. And males are more likely than females to choose courses in mathematics and science courses (National Assessment of Educational Progress, Spring 1984). The College Board Survey of College Bound Seniors of 1984 indicated that 32% of the males and 10% of the females planned to major in the physical sciences and computer

sciences (1984). Michael Usdan, President of the Institute for Educational Leadership, recently pointed out that without good school-business links, the problem will get worse (1986).

Myra and David Sadker's studies have identified many ways that females are discouraged from seeking equal educational opportunities. A great deal of this discouragement takes place in the home and classroom. In their studies, the Sadkers have demonstrated to teachers who believed that they were treating male and female students equally, that they were actually discriminating in favor of the males. Males are encouraged to be more assertive and receive far more encouragement and positive reinforcement from teachers and have longer conversations with them than do females (Leaders Achieving Sex Equity Regionally, April/May 1985).

Another recent report concluded that more women would be in science if they received more encouragement from schools and could be assured that a career in science would not interfere with raising a family. This report is based on data drawn from the National Center for Education Statistics' "High School and Beyond," a national survey of 1980 high school seniors and college sophomores. The survey also collected follow-up data on participants in 1982. The report was issued by researchers at Radcliffe College and the Educational Testing Service in January 1986. Despite the events of the last 15 years, the report said, there still is not equal opportunity for women in science. It is not considered as natural for women to embark on science careers, so they need more encouragement to do it. Of the 1,312 women students surveyed, only 14% chose to major in science, compared to 40% of the 1,280 men (Education Daily, January 10, 1986).

Also in January 1986, Henry Becker of the Center for Social Organization of Schools presented a preliminary report to the National Governors' Task Force on Advanced Technology in Education. Becker's study shows that lack of sex equity is still a problem. One approach to providing equity of access to computer skills in public schools is to require the computer courses rather than offer them as electives. Texas is in its first year of requiring seventh and eighth graders to take a course

in computer literacy. Without such courses, state educators "fear that students in more rural or less affluent districts, women and minorities would not have equal access to computing," said Geoffrey Fletcher of the Texas Education Agency (Education Computer News, January 15, 1986).

But what happens in the classrooms where the courses are taught is as important as providing the courses and resources. Students need to feel good about themselves, to believe that they can learn, in order to participate in learning. So equal educational opportunities for all students also depends on the atmosphere in the school and classroom. Those who set this climate must have positive attitudes about all students, regardless of ethnicity or gender (color or shape of skin), dominant language, handicap, social class, or any other factor by which they might seem "different" in such a way as to make them ineligible for learning.

From his experiences in working with many school administrators and teachers throughout the United States, Wilbur Brookover concluded that the majority of them "believed that differentiated and inequitable educational programs were not only desirable, but probably the only way in which a school system could function." (April, 1984) Brookover may have overstated the case. But Joe Nathan, a school administrator, had already concluded, in his Free to Teach: Achieving Equity and Excellence in Schools (1983), that "people of good will and talent" in public education face enormous barriers in providing responsive, effective education. His proposals for removing the barriers--including formation of school site councils, magnet schools, and incentives--struck a responsive cord among many educators.

This may be the most difficult challenge of bringing about changes in schools, as in most other parts of American life. The task is huge. A number of studies have advocated major roles for business in partnerships to accomplish this task (George Cabot Lodge and William R. Glass, "The Desperate Plight of the Underclass," for example. Others are listed in the references following this section). One role is in school and business partnerships.

Many corporate executives are in the front ranks of the movement for education and private sector partnerships. In a series of dialogues

sponsored by the College Board in 1983, business leaders surprised many educators with the conclusion that high-quality academic preparation is not just for the college-bound students. Rather, students who enter the work force directly out of high school need many of the same academic competencies as do those going on to college. Business and education leaders agreed in their endorsement of six Basic Academic Competencies--reading, writing, speaking and listening, mathematics, reasoning, and studying--that were identified by the College Board's Educational Equality Project. These competencies, say business people, are as necessary for success in the world of work as they are for success in college (The College Board, Educational Equality Project, 1983a, 1983bd).

In her study of 10 urban school and business partnerships, Neubauer concluded that the businesses and chambers of commerce partners were interested in more than simply improving students' employability in a vocational or career education sense (Neubauer, 1982). It does appear that partners for educational improvement in general are, if not committed to, at least supportive of, efforts to develop more effective schools for all students. For one thing, this is necessary if the overall quality of life is to be upgraded.

Recent research and practice provide clues as to how to develop more effective schools for all students. Some of the effective schools research during the past decade focuses on equal educational opportunity for disadvantaged children. Several of these studies indicate that integrated schools with supportive teaching-learning conditions tend to have several positive results with regard to racial attitudes and self-concept and that academic achievement rises for the minority children, and relatively advantaged majority children continue to learn at the same or higher rate (Weinberg, 1977a, 1977b; Edmonds, 1979; Epps, 1979; Comer, 1980; Brookover, April 23, 1984). As Kirk and Goon noted (1975), the conditions--identified in studies reviewed by themselves, Katz (1964), St. John (1970) and others--are not unique to success for minority students in a desegregated setting, but that they are vitally important to academic success for anyone in any educational setting (King, 1982).

In general, the same characteristics that correlate with effective schools also correlate with effectively integrated schools. (Westbrook, 1982) It seems that these characteristics--high expectations, success, positive behavior management and environment, cooperative staffs, and a strong leader who has a definite goal/plan and communicates well with staff and consumers (e.g., students, parents, community)--also correlate to corporate effectiveness. These characteristics are similar to the "Lessons from America's Best-Run Companies" which are discussed in Peters and Waterman's widely read and often quoted In Search of Excellence (1982). And, as in much of the effective schools literature, the authors do not discuss exactly how a company can develop the attitudes, skills, knowledge, and conditions needed for excellence/effectiveness.

It is clear, however, that many partnerships to improve education are having a positive impact by providing opportunities and incentives to students who cannot, at this time, get these anywhere else.

- In San Antonio during the 1984-1985 school year, the Coca Cola Corporation sponsored a Dropout Prevention Program involving 50 students who were at risk of leaving school before graduation. The 25 high school students in South San Antonio Independent School District and 25 high school students in Edgewood Independent School District were given responsibilities in tutoring 150 elementary students in the two districts. The assumption of the project was that giving at-risk high school students responsibilities for tutoring and assisting elementary school pupils can not only help the pupils improve their academic performance, but that even greater gains will be made by the high school students in improved self-concepts, attendance, school citizenship, and basic academic skills.

  Based on external evaluation, "there has been a notable decline in the rate of absenteeism for the majority of the [high school] students, referrals for disciplinary action are relatively low for the type of population involved, and self-concept data reflect a trend toward improved self-concept among participants" (Intercultural Development Research Association, 1986).

- In Chicago, the Sara Lee Corporation has sponsored 13 different improvement programs at Harper High School during four years as adopter of the school. The company has sponsored such activities as the Academic Team, wherein students with high attendance, grades, or teacher recommendations participate in special events or serve as paid tutors. Sara Lee also awards two scholarships a year

for students planning to attend a four-year college and reimburses teachers for tuition for courses to improve their teaching. Benefits of the partnership have included a decrease in incidents of violence, and improved attendance and reading scores.

- Again, it is important to remember that any size partnership can be successful in improving education. Walter Boyd, an attorney, runs a one-person partnership with several Houston schools, providing students with motivational talks, mock trails, and incentive contests. And on a larger scale, the Business Task Force on Education, founded by a group of New Orleans business executives in 1978, has "adopted" the New Orleans School Board, provided management training for administrators in the district, conducted a successful campaign to get voter support in passing a tax to provide funds for almost $100 million in new construction and renovation for school facilities, studied the nature and scope of the problems underlying the lack of student achievement, and formulated an Academic Excellence Program as a guide for the school board. The levels of most projects fall somewhere in between these two.

- MicroEd, a small computer software company in Minneapolis, put an advertisement in a professional journal, offering $10,000 worth of instructional software to any school library willing to set up a home lending service for educational computing materials. The service would allow the school's students and their parents to borrow materials to take home and use in the family computer. One million dollars was donated by the company, in return for name recognition in a competitive field.

- Many partnerships are reciprocal, wherein the school provides something to their partner. The Jackson Elementary School and Pepsi Cola in the Jackson, Mississippi Adopt-a-School Program is one such partnership. The company provides motivational awards such as Pepsi Cola products and T-shirts. In return, the students invite the company's employees to school events and lunch, display art and projects in the Pepsi building, and give certificates of appreciation at the annual spaghetti supper sponsored by the adopter.

- The Jackson Adopt-a-School Program includes several student incentive student incentive projects. One of these is the "Key Bucks Program" that awards "bucks" (coupons) to elementary students and their parents. Students earn bucks for attendance, work habits/behavior, and academic achievement. Parents earn bucks for school-wide scheduled conferences with a teacher and for attending P.T.A. meetings. Students can redeem their bucks at the end of each six week term at a "store" and/or auction or save them for a final big store with more expensive items at the end of the year. Merchandise is purchased with funds from a local television station and aluminum can sales.

- The owner of Dairy Queens in Oklahoma City provides incentive awards of his products to students who earn them in a district-wide reading program. The program started in one school but was in every city school by 1984.

- Kroger Company in Cincinnati provides an award of a Kroger product monthly to each Washington Park Elementary School student who has perfect attendance that month. This is food that most of the homes need, so the parents would also have an incentive to see that students got to school every day on time.

- Also in Cincinnati, Ohio National Life insurance provides certificates, medallions, and trophies to award student achievement at a junior high school. Teachers are also honored for perfect attendance. Further, a top executive writes a letter on company stationery to congratulate parents of the student who are honored.

- One large insurance company donated computer equipment to a local high school. Company personnel are conducting classes for students and teachers during the day.

- Many partnerships serve more than one purpose. For example, the Career Guidance Institute in Albuquerque is successful in providing school- to- work experience. It also helps provide equal educational opportunity.

SELECTED REFERENCES FOR INCENTIVES AND EQUAL EDUCATIONAL OPPORTUNITIES

Aetna Life & Casualty Foundation, Inc. Contemporary Issues in Public Education and Opportunities for Corporate Initiatives. Hartford: Corporate Public Involvement Department, 1986.

American Council of Life Insurance, Trend Analysis Program, TAP, March 1984.

Brookover, Wilbur. "Achieving Equality of Education Programs: Recommended Action." Paper presented at the American Educational Research Association Conference, April 1984.

Cárdenas, José. IDRA Newsletter, February 1983; August 1983; September 1984.

College Board Educational Equity Project. Academic Preparation for College: What Students Need to Know and Be Able to Do. New York: The College Board, 1983.

College Board. Academic Connections, Fall 1983.

Comer, James P. School Power: Implications of an Intervention Project. New York: Free Press, division of Macmillan Company, 1980.

Edmonds, Ronald. "Effective Schools for the Urban Poor." Educational Leadership, October 1979.

Education Commission of the States. Law and Education Center Footnotes, Summer 1983.

Ely, Margot. An Evaluation of the Pal/Consortium Computer Center Summer Camp Equity Project, Technical Report number 2, Study of Interactive Technologies in Education. New York: New York University, November 1984.

Epps, Edgar G. "The Impact of School Desegregation on the Self-Evaluation and Achievement Orientation of Minority Children." Paper presented at the national conference, From Desegregated Schools to Integrated Education, Milwaukee, Wisconsin, July 9-13, 1979, co-sponsored by the Urban Educational Program, CEMREL, Inc. and the Milwaukee Public Schools.

Etzioni, Amitai. Self-Discipline, Schools, and the Business Community. Washington, DC: National Chamber Foundation, 1984.

Health Insurance Business in Public Schools. Report of a conference, October 21, 1983, Washington, D. C.

Intercultural Development Research Association. Final Report for the Cola-Cola Valued Youth Partnership Dropout Prevention Program. San Antonio, Texas: IDRA, 1985.

Johnson, James P. "Can Computers Close the Educational Equity Gap?" Perspective, Fall 1982.

Katz, Irwin. "Review of Evidence Relative to Effects of Desegregation on the Intellectual Performance of Negroes." American Psychologist, Vol. 19, 1964.

King, Al. A Handbook for Inservice Education: Guidelines for Training, Multicultural Education, and Desegregation. Austin, Texas: Southwest Educational Development Laboratory, 1982.

Kirk, Diana, and Susan Good. "Desegregation and the Cultural Deficit Model: An Examination of the Literature." Review of Educational Research, Vol. 45(4), Fall 1975.

Levin, Henry M., and Russell W. Rumberger. The Educational Implications of High Technology. Project Report No. 83-A4. Stanford, California: Institute for Research on Educational Finance and Governance, School of Education, Stanford University, February 1983.

Lezotte, Lawrence W. "Equality of Educational Programs Within a School District." Paper presented at the American Educational Research Association Conference, April 1984

Lodge, George C., and William R. Glass. "The Desperate Plight of the Underclass." Harvard Business Review, July/August 1982.

Malcolm, Shirley M. "Is Educational Equity Being Addressed in Proposal Standards for Students, Teachers and Schools?" Paper presented at the American Educational Research Association Conference, April 1984.

Molnar, Alex. "The Equality of Opportunity Trap." Educational Leadership, September 1985.

Nathan, Joe. Free to Teach: Achieving Equity and Excellence in Schools. New York: Pilgrim Press, 1983.

National Assessment of Educational Progress. NAEP Newsletter, Spring 1984.

Neubauer, Antonia R. Business-Education Cooperation: A Review of Selected Urban Programs. Philadelphia: Research for Better Schools, October 1982.

Peters, Thomas J., and Robert H. Waterman, Jr. In Search of Excellence: Lessons from America's Best-Run Companies. New York: Harper & Row, 1982.

Sadker, Myra, and David Sadker. "Leaders Achieving Sex Equity Regionally." Laser, April/May 1985.

St. John, Nancy Hoyt. "Desegregation and Minority Group Performance." Review of Educational Research, 40, February 1970.

Twentieth Century Fund. Making the Grade, Report of the Twentieth Century Task Force on Federal Elementary and Secondary Educational Policy. New York: Twentieth Century Fund, 1983.

Usdan, Michael. "School-Business Links Will Be Increasingly Critical." The School Administrator, February 1986.

Weckstein, Paul. "Democratic Economic Development is the Key to Future Quality Development." Phi Delta Kappan, February 1983.

Weinberg, Meyer. "Inner City Education: Reading the Writing on the Wall," Perspectives, Winter/Spring 1983

Weinberg, Meyer. Minority Students: A Research Appraisal. Washington, D.C.: National Institute of Education, 1977.

Weinberg, Meyer (Ed.). Research Review of Equal Education, Vol. 1, No. 1, Winter 1977. Center for Equal Education.

Westbrook, John D. "Considering the Research: What Makes An Effective School?" Austin, Texas: Southwest Educational Development Laboratory, 1982.

D. ASSISTANCE TO TEACHERS, ADMINISTRATORS, AND OTHER SCHOOL STAFF

The partnership efforts to help students directly--enrichment, school-to-work projects, and equal educational opportunities--also involve teachers, administrators, and other school staff. There are other approaches to helping students that involve them less directly and the school staff more directly. The National School Board Association has urged school districts to avail themselves of private sector assistance that can include (Loozen, October 1982):

-cash donations
-management studies
-legal assistance
-staff development
-help with passing tax levies
-assistance with budget preparation
-help to obtain legislative goals
-long-range planning
-desegregation
-parent education
-assistance with communication efforts

The partnerships to assist school staff in improving education for students are more meaningful when the private sector is personally involved. When people representing the schools and the private sector interact, there are more opportunities for synergy to occur. Trust and understanding develop. And out of understanding can come "unexpected" benefits (we now know that we can expect them). For example, when business and other community representatives come into a school building and classroom as partners, they may be coming for the first time since they were graduated from high school. They see that there are many good things happening in schools. They also realize that many schools have legitimate needs that cannot be met with the available funding.

This is the point where partners not only contribute goods and services to help school staff help students, they also become advocates for the schools. As the National School Board has suggested, once they

understand school needs, many private sector partners have helped pass tax levies and bond issues.

Further, the 225 educators and corporate executive officers who participated in a two-year study by the Committee for Economic Development said they believed that one appropriate role for the business community is as an advocate for policies and adequate funding for school improvement. The Committee's Research and Policy Committee, composed of 225 corporate executive officers and university presidents, issued a forthright call for businesses and communities to "invest in public schools." The Committee called for:

- a major investment in early childhood education and the junior high/middle school years as the years at the levels with the most economic payoff,
- an overhaul of vocational education that would severely limit its role in the curriculum, to allow more time on basics,
- adequate financing for reforms, especially for higher teacher salaries across the board, as well as for stipends for travel and study, and rewards and incentives,
- local and state funding as the first reports for meeting the special educational needs of minorities, the handicapped, and women.

The report had little to say about equity and did not say that business would assume a greater proportion of the costs of reform, but it did indicate, at least for the businesses represented on the Committee, the private sector's willingness to pay its share (Committee for Economic Development, 1985).

Money or computers tend to show up at the top of needs lists submitted by schools with their first opportunity to become a partner with business. After some experience in a successful partnership, however, the school tends to say that the most valuable resource is the human resource. It is good, of course, if there are both, material and human resources. But some experienced school persons say that if they had to choose, they would elect to have the human resources. This, they say, is what really makes meaningful things happen, events that most deeply affect students and

school staff. And many of the experienced business partners agree. It is clear that partnership efforts to help teachers, administrators and other school staff, and students directly--the enrichment, school-to-work projects, and equal educational opportunities--are more meaningful when they involve people's time and presence as well as material contributions.

Because more is known about corporate donations of funds, equipment, and materials than about the potential of using school and business partnerships to develop human resources, this synthesis focuses on the involvement of people. Collaborative staff development gets the most attention. The following discussion provides illustrations of how corporations have provided employees (including their chief executive officers or other high ranking staff) to assist school staff, serving as volunteers in many ways. These ways include but are not limited to the following:

(1) Service as an aide, as in a classroom or principal's office, doing routine paperwork in order to free school staff to spend more time with students or other learning-related activity. Twenty employees of the Illinois Bell Telephone Company formed a bilingual "call squad" for Benito Juarez High School in Chicago and have helped reduce a 20% absentee rate to 13%. In 1984 two school and business/community collaborative projects in Little Rock, Arkansas won National School Volunteer Program awards. In one project, the Pulaski County Literacy Council paired volunteers, trained in the Laubach method of teaching reading, with a group of junior high students whose reading skills were below grade level. During one semester 15 volunteers spent two hours weekly tutoring the students individually. The project was awarded second place in the National School Volunteer Program's annual national awards. First place was won by the "Young Authors Creative Writing Program," which complemented and extended the elementary language arts curriculum in Little Rock public schools. The program provides elementary students with opportunities to acquire an enthusiasm for writing while developing both creative and analytical writing and thinking skills. The project is implemented by volunteers in elementary classrooms.

(2) Service as a staff member for partnership project. Ten members of the Junior League in Oklahoma City have been trained to work as staff members of the city's Adopt-a-School program. They recruit business partners and serve as coordinators between the schools and private sector.

(3) Construction of learning materials. In "The Partners Project," members of the Jaycee Chapter at the Wrightsville Unit of the Arkansas Department of Correction were trained by business/community volunteers and the Little Rock school district's Reading Department staff to construct learning aids for use by elementary reading students. More more than 100 Jaycee inmates spent almost 1,000 hours producing hundreds of reading aids during the 1983-84 school year.

(4-a) Two examples of funding activities are included because they are illustrative of relatively small capital investments that **yield large human resource dividends.** One activity involves private sector funds used for indirect staff development, such as tuition or travel expenses for conferences. For example, the Sara Lee Corporation in Chicago pays tuition for teachers who take courses to improve their teaching. Sara Lee sees this as an extension of their role as an adopt-a-school partner. The teachers involved report that their spirits are raised because they know that someone in the community cares enough about what they do to invest in their development. In Albuquerque, a private sector fund has been established to pay expenses for mathematics and science teachers to attend out of town professional conferences. The school district provides release time for the teachers.

(4-b) Another creative use of small amounts of funds is in the form of grants directly to teachers. The Allegheny Conference on Community Development, in Pittsburgh, uses small grants (approximately $400) for teachers to meet two needs. First is the need to bring new resources to the classroom, "the focal point of education." Second is the "need to break down the school district's isolation" from business and civic leaders, from municipal government, and from community members who may not have children in the public school system. (Allegheny Conference, 1985) With these, teachers carry out small innovative classroom projects. One unforeseen benefit from the grants is the increase in teacher morale, affecting even teachers who have not received grants.

While it may be argued that the Pittsburgh teachers/school district should have had this money in their budget to begin with, they did not. And the grants are said to be calling attention to school needs and increasing community support for public funding. These grants have been so successful that David Bergholz, President of the Allegheny Conference on Community Development, obtained funding from the Ford Foundation in order to create the Public Education Fund. The fund increases the amount of the grants and extends the concept to other communities. It awards grants "to strengthen public/private collaborations devoted to improving the quality of public education and increasing support for public schools." The Public Education Fund has completed its third year of a five-year grant program and has helped benefit communities throughout the country (Public Education Fund, 1985).

(5) Technical assistance and consulting such as management studies, legal advice, public/community relations. Because they have implemented the concepts of management by objective, systems strategies, and task orientation, many business leaders realize that managers must find ways to empower the people responsible for productivity and quality (Levine, February 1986; Committee for Economic Development, 1985). Following are some examples of how business expertise has helped schools.

The Business Education Task Force, formed by private sector executives in New Orleans, provided consultants to evaluate the public school's financial operations, which were revamped on the basis of the study.

In Austin, the "Forming the Future" campaign got more than 14,000 citizens involved in evaluating every aspect of the city's school system. Each principal was given materials to organize school-community liaison teams (SCLTs) at each campus. Each SCLT surveyed its community. Over 14,000 parents and other community members returned responses to a questionnaire about what they liked about the schools and what should be done to make them better.

A 500-member Coordinating Council was formed from nominations submitted by over a thousand community groups and organizations, and the school board selected an outstanding leader. After hundreds of school visits and hundreds of meetings, the Coordinating Council reported its findings to the Austin School Board. The report has served as a basis for numerous school improvements and the Forming the Future Campaign accomplished all of its five goals. These goals were to produce:

- a long-range plan supported by the community for the future of the Austin Independent School District (AISD)
- curriculum renewal
- a financial plan to ensure high quality education at a reasonable cost
- increased citizen participation in programs of AISD
- citizen support for facility improvement leading to a successful bond election ($210 million in 1984)

Using the expertise of local businesses, the Carrollton-Farmers Branch school district in suburban Dallas has developed successful programs that helped evaluate the school system's operations and improve efficiency in such areas as purchasing, maintenance, finance, payroll, transportation, and food services. School board initiative and local business support were instrumental in the successes of the programs (Loozen, October 1982).

In New Haven the Olin Winchester Group contributed six months of consultant services. Subsequently, 80 firms have provided services worth hundreds of thousands of dollars in 200 schools. A business study of school bus operations in Baltimore has saved the district more than $700,000.

Education Services of The American Council of Life Insurance (ACLI) suggests several services that insurance companies can offer to schools (ACLI, 1983). ACLI groups these in three areas:

Physical Plant
- Design of new facilities
- Redesign of existing structures
- Updating of heating and cooling systems
- Assistance in landscaping
- Office design
- Safety measures

Management
- Financial management
- Employee benefits
- Insurance
- Updating office procedures
- Computerization of personnel, payroll, and student data
- Public relations activities
- Publications and printing
- Equipment purchases
- Sponsorship of staff planning activities

Student affairs
- Design of attendance monitoring system
- Computerization of course offerings and enrollment data

Many businesses other than insurance companies can provide schools with these services without capital outlay, using staff time and expertise they already have. This is not to say that such services are without cost to businesses. If the staff perform these services on time released by the company, the cost of this time mounts quickly. Some employees volunteer to perform the services on their own time. In some cases, a company and employee share the donation of time.

(6) Staff development contributed directly by business partner with relevant expertise. Neither business nor schools have realized fully that company training programs constitute a resource that schools could put to good use in staff development (Jackson, July 1983). Through experience, businesses have come to understand the value of well-educated and well-trained people in their organizations, and they invest heavily--about $40 billion--in human resource

development. In contrast, only a small portion of most school budgets goes to staff inservice training, and "the development of that effort is relatively primative compared to that of the" private sector's commitment (Levine, February 1986; see also Committee for Economic Development, 1985).

In the emerging Information Age, a major challenge, perhaps the most formidable challenge (Naisbitt, 1982), is to keep human resources abreast of technological advances. This transfer of crucial technical knowledge is not the only important resource that can come through school and business collaborative staff development. The affective needs of human resources must be attended also. As Naisbitt has said, "Whenever new technology is introduced into society, there must be a counter balancing human response--that is, high-touch--or the technology is rejected." (1982). In their search for excellence as part of what could be learned from "America's best run companies," Peters and Waterman (1982) reported that the success of 60 of the most profitable businesses was related to how they treated their employees. Treat people "as partners; treat them with respect. Treat them--not capital spending and automation--as the primary source of productivity gains."

Not all school administrators need lessons in humanizing their workplace. There are schools that are excellent places for developing human resources, both staff and students. There is much that could be learned in a book of "Lessons from America's Best Run Schools." But one of the characteristics of an effective school is that its staff is developing continually. So even the best run schools may learn lessons from successful businesses on improving the quality of life in the work place in order to increase their productivity.

This section of the synthesis discusses the intersection of the human and the technological, how human resource development and organizational development concepts relate to each other, and how they can be applied effectively to staff development that enhances collaboration efforts.

Staff development for teachers, principals, and other school staff has always been important to school improvement (McLaughlin & Marsh, 1978). Such staff development is even more important now when schools and society

need to make the most effective use of available resources, especially human resources.

During the past decade and a half there has been considerable progress in human and organizational development which indicates that much is known about the conditions which correlate with effectiveness and how to develop both the cognitive and affective domains necessary for these conditions. Much of this expertise is embodied within the related concepts of andragogy and human resource development (HRD). As practiced in the public and private sectors, androgogy, the art and science of teaching adults (Knowles, 1980, pp. 40-42), is based increasingly on assumptions of respect for individuals and their capacity for professional growth. Other andragogical assumptions which have strong implications for inservice education and other adult educational practices, are that as individuals mature (Knowles, 1980, pp. 43-45):

1. their self-concept moves from one of being a dependent personality to one of being self-directed;

2. their reservoir of experience becomes an increasingly rich resource for further learning;

3. they attach more meaning to those learnings they gain from experience than to those they acquire passively;

4. their time perspective changes from one of postponed application, and their orientation towards learning shifts from one of subject-centeredness to one of performance-centeredness.

Many American businesses have adopted these assumptions for developing human resources. In an era of increasing competition from abroad and of an economy shifting from an industrial base to one of service and information processing, **the most important resources are no longer natural resources or even capital, but human resources** (Dahl and Morgan, 1983, p. 3).

There is a widely held and spreading belief that many corporations are providing high quality and cost-effective HRD inservice education for their employees. Some educators believe that the corporate sector has exceeded the education sector in the recognition of how learning is instrumental to economic and organization productivity. Herman Niebuhr, Jr., Vice

President of Temple University, has said that business successes in this area display "evidence of educational innovation, both substantive and methodological, far beyond the models and innovations of higher education," and have made corporate educational enterprises competitive with public education (Niebuhr, 1982). There is evidence to support Scobel's (1980) assessment of the progress in HRD in the last two decades:

> HRD has probably learned more about learning and the potential for high-level development than evidenced in either the applied educational or academic research arenas. HRD has come of age. It trains well. It educates well. It develops well.

Funds and other tangible resources are important for education, but human resource development is the most important way that the private sector can assist school staffs in becoming more effective. And if staff development is to improve the productivity of the system, it is likely that the several parts of the system will need inservice. Administrators and all others of the district and school staffs have important parts to play in establishing and maintaining a climate for teaching and learning. It would seem that human resources are as critical to educational effectiveness as they are to business productivity.

Not all school inservice training is of poor quality, nor is all corporate training appropriate for schools. Rather, the suggestion is that one of the ways in which business and industry have profited from public education is by borrowing those staff development practices and research which could be adapted as part of corporate staff training. And, in turn, corporate inservice practices and research have elements which can be used to benefit schools. This seems particularly appropriate during a period in which business and industry have relatively more resources for staff development than do schools (Wise, November 1981).

By far, most of the private sector's contributions to education have gone to, and continue to go to, universities and colleges. Most business contributions to K-12 schools have been in the nature of executives doing voluntary consulting work, funding other consultants and short-term programs for students, and most often, providing funds, advice, and

course-related job experience for career and/or vocational education courses. A literature search for school-business relationships identifies more sources on career and vocational education and the transition of youth from school to workplace than other topics. The literature includes little information on adopting business training practices for use with school staffs except with regard to career and vocational training, and, it is important to note, this adoption has been successful in those programs.

Awareness that schools can learn from business on a broader basis is growing. "Partnerships with business could help the inservice problem," said the executive director of the National Association of Elementary School Principals (Sava, 1984). There is excellent potential if both parties will "sit down, identify individual needs, and decide what type of partnership is needed."

School administrators have identified management training as one area of need. The National Center for Education Statistics reported that their survey of school superintendents indicated that they rated as urgent, their need for training to do their jobs more effectively. The superintendents said their jobs require more training in public/community relations and use of media, budget management and finance, program and staff evaluation, energy management, dealing with unions, and organizational structure and development. The National Center for Education Statistics concluded that these needs applied to other school administrators, especially principals (Patterson, 1983).

Some school and business/community partners have realized the potential of collaborative efforts to develop school staff to better prepare them to meet students' needs for the future. Some of these efforts are briefly described below. These examples are arranged more or less according to scale, smaller projects first, then intermediate and next, larger-scale efforts. But it should be kept in mind that size is not a factor which predicts success. Development of one teacher or one principal is important, whether this development occurs as the result of a partnership involving one school or every school in a state. These examples are offered in order to suggest a broad range of possibilities.

And it should be noted that the partners providing school staff with awareness, knowledge, and skills, are not all businesses. Hospitals, museums, colleges, and governmental and other agencies may have much to contribute toward meeting school and student needs.

Small Scale

- The "Technical Education Institute" is a computer programming project in the Chicago public schools designed to augment newly created computer programs for 100 students in grades five through eight. Its primary objective is to familiarize students with computers and to teach them basic programming. The Institute includes teacher inservice on the use of computers as well as direct student instruction. Students work on computers, learn programming, and make visits to computer sites. The Institute requires the services of one staff instructor once a week for three hours.

- Ford Foundation "Math Collaboratives" exist in five cities around the United States to offer 50-100 teachers in inner-city schools the opportunity to meet and work with mathematics professionals in higher education and business. The collaboratives operate in Philadelphia, San Francisco, Minneapolis, Los Angeles, and Cleveland. Activities at each site vary, but include developing new classroom materials, participating in intensive summer institutes, and helping students relate mathematics to the world of work.

- The Monsanto-Kirkwood High School/Soldan High School Partnership in St. Louis, Missouri, provides teachers and students with enrichment in chemistry at the secondary school level and combines an inner-city school with a suburban school.

- Teachers, principals, and other staff in Albuquerque, New Mexico, have the opportunity to work during summers with nearby businesses such as the New Mexico Public Utility or the Sandia Labs, to increase their skills in a variety of areas. Companies involved pay the educators' salaries during their stay. The American Council of Council of Life Insurance suggests that its members offer such staff development activities as

    - tours of company sites
    - workshops on business techniques for career education teachers
    - policy development seminars on insurance-related curriculum issues such as financial planning and health
    - summer seminars on business techniques
    - internship and summer employment opportunities
    - personal financial planning seminars
    - career change guidance
    - seminars on communication skills, data processing, budget preparation, and accounting

- workshops on management, personnel, public relations, advertising, marketing, investing, and insurance.

- The Austin, Texas chapter of the American Society for Training and Development (ASTD), provides training to the staff development and other personnel in the Austin schools in personnel management, oral presentations, interpersonal relations, and other topics. District media staff videotape presentations for use with other educators.

- Valley High School in Albuquerque, New Mexico has a model program partially funded by Honeywell Corporation to train staff in the use of quality circles as a method of participative management.

Intermediate Scale

- The "Spice Summer Program of Internships for Companies and Educators" is sponsored by the Industry Education Council for California to provide educators with technical training in math, science, and computer courses. Businesses are matched with teachers or counselors over 5-10 week periods during the summer to work on specific projects.

- Cincinnati Bell has provided that city's Bloom Junior High School with two systems analysts who advised on the purchase of new school computers and software.

- General Motors has supplied a management training expert to Washington, D.C. schools to conduct a team-building workshop for key personnel.

- Digital Equipment Corporation has designed a three-day training course in computer technology for top administrators in the Washington, D.C. schools.

- Chase Manhattan Bank of New York has contributed $430,000 to train high school principals to become better educational leaders.

- The Danforth Foundation sponsors a "Metropolitan Human Resource Development Program" in the Atlanta schools to bring the education and business communities together in what is now called the Atlanta Partnership.

- The "Work/Education Fellowship Program" is funded by the Ford Foundation as a staff development program to help school-based and other instructional staff members increase their abilities to prepare students for the transition from school to work.

- The Honeywell Corporation provides math and science teachers from 11 Minneapolis-St. Paul area high schools the opportunity to participate in annual summer teacher academies. Teachers attend lectures by Honeywell scientists, observe how math and science are

used at high tech companies, and develop classroom projects based on what they learn. Ultimately, the project is expected to enhance students' classroom experience by exposing their teachers to the world of corporate technology.

- In Chicago, nearly 3,000 teachers in two pilot districts have received eight hours of training to give career education to their students. Businesses have assigned 70 career education coordinators to the effort and have established 15 career development centers. Activities at the centers include such things as airport personnel dealing with air transportation careers and Holiday Inn employees teaching motel operations.

- Leadership academies are available for Albuquerque, New Mexico principals to obtain training tailored to their needs. Programs are sponsored by local businesses and are generally held on weekends.

Large Scale

- "State Education Policy Seminars," sponsored by the Education Commission of the States and The Institute for Educational Leadership, are a nation-wide network of seminars for state educational and political leaders to explore key policy issues. A number of nation-wide foundations, and trusts as well as local universities and businesses fund the seminars.

- IBM Corporation is lending nearly 100 of its employees as teachers in high schools, universities, and community colleges in 28 states, the District of Columbia, and Puerto Rico. These temporary faculty are spending a year teaching, leading seminars, and working with school administrators at institutions which serve minority and disadvantaged youth. Most topics deal with business administration, computer science, and math.

- The Renewal Center in Pittsburgh is a fully operating high school which has also been transformed into a laboratory for high school teachers to renew their own skills. Groups of 50 teachers attend classes full time at the center for eight weeks while replacement teachers handle their classes. Specially trained district teachers serve as resident teachers at the Center, teaching their colleagues the latest research-related information about instructional skills, adolescent development, and academic content. "Students" engage in special projects, serve as interns in the community, or learn new skills such as computer programming. The Center is funded by the Board of Education and the Ford Foundation.

- The North Carolina Department of Public Instruction and businesses in that state established a Business Liaison Program that provides the Leadership Institute for Principals. The Institute identifies businesses that are willing to train principals along with corporate managers.

Partnership staff development efforts involve two processes, one for inservice education and one for collaboration between the school and the private sector. Both processes involve change and are most productive when the participating individuals are provided with a comfortable climate or context for change. A context for effective inservice training is based on several assumptions. These assumptions are:

- Even schools that are functioning effectively in many ways can make improvements.
- School staffs are professionally concerned about education and want to improve their practices.
- Significant improvement in the quality of education requires not only a total school effort, but assistance from the community as well.
- School staffs have the capability to improve; however, resources, space, and especially time must be arranged so that the total school staff can participate in improvement activities.
- Teachers, administrators, and other school and district staff already possess important expertise, much of which may be useful to business.
- Professional improvement is an individual, long-term, developmental process, wherein staff members fit innovative concepts to their own concerns, styles, and situations.

More information about effective inservice is contained in the SEDL publication, A Handbook for Inservice Education... (King, 1982). The following section of this synthesis discusses a context and guidelines for effective partnerships for school improvement.

REFERENCES FOR ASSISTANCE TO TEACHERS, ADMINISTRATORS, AND OTHER SCHOOL STAFF

Allegheny Conference on Community Development. Five Year Report. Pittsburgh: Allegheny Conference, n.d., ca. 1985.

Allegheny Conference on Community Development. Small Grants for Teachers: A Handbook. Pittsburgh: Allegheny Conference, n.d., ca. 1985.

American Council of Life Insurance. Company-School Collaboration: A Manual for Developing Successful Projects. Washington, D.C.: Education Services, American Council of Life Insurance, n.d., ca. 1983.

American Council of Life Insurance. The Stake of the Life and Health Insurance Business in Public Schools. Washington, D.C.: American Council of Life Insurance, October 1983.

Boyer, Ernest L. "Classrooms and Corporations." Chapter 16 in High School: A Report on Secondary Education in America. New York: Harper & Row, 1983.

Bradford, Dalene DuBois, and Mary Beth Gordon. "The Learning Exchange: Making a Difference in Education through Private/Public Partnerships." Journal of Staff Development, May 1984.

Carnevale, Anthony Patrick. Human Capital: A High Yield Corporate Investment. Executive Summary, National Issue Series. Washington, D.C.: American Society for Training and Development, 1982.

Committee for Economic Development. Investing in Our Children: Business and the Public Schools. New York: American Enterprise Institute, 1985.

Dahl, Henry L., and Kent S. Morgan. "Return on Investment in Human Resources." Senior Manager Forum: Measuring Human Resource Development. ASTD National Issues Committee, Washington, D.C., February 24, 1983.

D'Amico, Joseph J., et al. "Preparing Teachers to Work in Partnership with Business and Industry: The Philadelphia Academies Teacher Training Program." Journal of Staff Development, May 1984.

Erickson, Cindy, and Wayne Bengtson. "Neighbors: A Partnership Project between the St. Louis Park, Minnesota Schools and the Military Avionics Division of Honeywell." Journal of Staff Development, May 1984.

Forming the Future Campaign. Forming the Future: A Report by the Community to the Board of Trustees of the Austin Public Schools. Austin: Forming the Future Campaign, 1982.

Gleave, Doug. "Six Concepts to Enhance School Effectiveness." Journal of Staff Development, May 1984.

Houston, W. Robert (Ed.). Mirrors of Excellence: Reflections for Teacher Education from Training Programs in Ten Corporations and Agencies. Reston, Va.: Association of Teacher Educators, 1986.

Jackson, Lois. "How to Form Business-School Partnerships: Background Papers for the Task Force on Education for Economic Growth." ECS Working Papers. Denver, Colorado: Education Commission of the States, July 1983.

King, Al A Handbook for Inservice Education: Guidelines for Training, Multicultural Education and Desegregation. Austin, Texas: Southwest Educational Development Laboratory, 1982.

King, Al. Models and Guidelines for Partnerships in Education. Austin: Southwest Educational Development Laboratory, 1985.

Knowles, Malcolm. The Modern Practice of Adult Education, Revised. Chicago: Association Press, 1980.

Koll, Patricia J., and Richard R. Hetland. "What Staff Developers Can Learn from the Private Sector: An Andragogical Approach." Journal of Staff Development, May 1984.

Levine, Marsha. "Business and the Public Schools." Educational Leadership, February 1986.

Loozen, Lu Van. "Looking for Resources? Try Business." Updating School Board Policies, October 1982. ED 224-088.

McLaughlin, Milbrey Wallin, and David D. Marsh. "Staff Development and School Change." Teachers College Record, Columbia University, Vol. 80, No. 1, September 1978.

Murray, Ann. "Japanese productivity: Challenge in the Classroom." Journal of Staff Development, May 1984.

National School Volunteer Program. The Teamwork Approach. Alexandria, Va.: NSVP, 1979.

Niebuhr, Herman, Jr. "Strengthening the Human Learning System." Change, November/December 1982.

Patterson, Arlene H. Management Training for School Leaders: The Academy Concept. Fastback 198. Bloomington, Indiana: Phi Delta Kappa Educational Foundation, 1983.

Pestello, Roxy J. "Staff Development in Schools and Industry: Perceptions of an Individual Who Has Been in Both." Journal of Staff Development, May 1984.

Peters, Thomas J., and Robert H. Waterman, Jr. In Search of Excellence: Lessons from America's Best-Run Companies. New York: Harper & Row, 1982.

Public Education Fund. The First Two Years: The Public Education Fund, 1983-1985. Pittsburgh: Public Education Fund, 1985.

Rumery, R. E. "Measuring Teacher Merit: What We Can Learn from Business and Industry." In H. D. Johnson, Jr. (Ed.), Merit, Money and Teachers' Careers. Lanham, Maryland: University Press of America, 1985.

Sava, Samuel. Remarks to the National Association of Elementary School Principals Annual Meeting, 1984.

Sparks, Dennis. "The Human Factor in Business--and in Schools." Journal of Staff Development, May 1984.

Thomason, Annette J. "Teacher Interns Update Skills." VocEd, May 1983.

Wlodarczyk, Steven, and Beth Bandy. "Using Quality Circles in Education." Journal of Staff Development, May 1984.

Wise, Robert I. "Schools, Businesses, and Educational Needs from Cooperation to Collaboration." Education and Urban Society, November 1981.

Wood, Fred H. "Mining Good Staff Development Ideas in Business." Journal of Staff Development, May 1984.

Wood, Fred H. "One Way to Study Staff Training in Business and Industry." Journal of Staff Development, May 1984.

III. A PROCESS FOR PARTNERSHIPS

A. ESTABLISHING A CONTEXT FOR PARTNERSHIPS

Every collaboration is an innovation. Even if the persons involved have had other experiences together or experiences in similar circumstances, the creation of any different constellation of actors and purposes engages everyone in something new, in change. There may be a certain amount of evolutionary inertia with every organism. If changes are made too quickly, without accommodation, the organism will not be able to adapt.

Research on the implementation of innovations[1] indicates two major conclusions: one, that change is a complex interplay of four elements, and two, that the people involved in change do not remain static during the experience, but move through several stages of concern about the innovation in which they are participating. The four elements of change which researchers have noted are that change is clearly a process rather than an event; (1) that it is made by individuals first, (2) then institutions; (3) that it is a highly personal experience for those involved; and (4) that it entails developmental growth in the feelings and skills of participants. Thus, research indicates, the implementation of new ideas or projects, such as collaborative arrangements, must be tailored to the people involved rather than to the innovation itself. Unless the concerns of the people are acknowledged and their energy harnessed, the innovation more than likely will fail (Hall and Loucks, September 1978).

---

[1] The Research and Development Center for Teacher Education at The University of Texas at Austin has conducted extensive research in this field. This led to the development of the Concerns-Based Adoption Model (CBAM), on which this discussion is based. An extensive bibliography on the subject is available from the CBAM Project, R&D Center for Teacher Education, The University of Texas, Austin, Texas, 78712. For the initial article describing CBAM and the stages of concern discussed here, see Gene E. Hall and Susan Loucks, "Teacher Concerns as a Basis for Facilitating and Personalizing Staff Development," Teachers College Record, V. 80, No. 1 (September, 1978), 36-53.

Not surprisingly, the first reaction participants have in an innovation, once they have complete information about it, is, "How will it affect me?" This early stage of concern will, when answered in a way that assures benefit, eventually develop into stages less concerned with the self and more towards others. These stages include a concern about managing time and materials related to the innovation; comprehending the consequences of the change on the people it will affect; relating what is happening to others interested in the same thing; and finally, looking at ways to improve the innovation, to make it work even better. At every stage, however, the individual is still at the center of the concern; only the person's perspective enlarges to a broader context. Clearly, then, people are the most important element in any change process. They are the focus of the context in which collaborative arrangements not only take place, but also succeed.

Awareness of the importance of the human dimension is only the first step. There are four essential elements which make up a context conducive to successful collaboration.[2] In each of these, the personal stage of concern comes into play. Each element should be considered by potential collaborators before they act, and must be securely in place to increase the opportunity for success. Often, failures in collaborative arrangements occur after participants have agreed to take part, when follow-through and maintenance should occur but do not. These failures occur because, unless participants understand the entire context of the project, and unless they are comfortable with it, they cannot know with certainty where it will lead or if it is worth their time and effort; they can agree in principle but not in action.

The four conditions which form the context for successful collaboration are:

1. shared or overlapping goals;
2. community resources to meet school needs;

---

[2] This Context Model is based on a presentation by Dr. Reuben McDaniel to the Project WISE Working Conference to develop models and guidelines for school-business collaboration (Austin, Texas, October 11-12, 1983).

3. a mechanism for the exchange and application of the resources; and
4. feedback about results to the partners involved in the collaboration.

Each of these is discussed below.

1. Shared or Overlapping Goals

Shared or overlapping goals are the impelling force for all parties involved in a collaboration. Unless they can be determined by answering such questions as "What do I want to achieve that you can convince me I can achieve better by working with you?" and "What goals do you share with my goals that will make this collaboration sensible, productive, and profitable to all of us?," it will not be possible to get beyond the personal questions of the early stage of concern in an innovation, questions like "How will this affect me?" and "Why should we collaborate at all?" The key to this condition is the existence of mutually beneficial goals which will <u>drive</u> participants toward a joint effort.

2. Resources to Link Schools and Their Community Partners

In order to fulfill shared or overlapping goals, parties in a collaboration must have access to resources which are useful to one or more of the participants. These resources need not be simply materials, but may also be information, expertise, time, equipment, money, or anything else that one participant has and is willing to share and is of use to another in the collaboration. Choosing what resources are considered excessive or expendable is a crucial aspect of this condition. People will react far more favorably when they feel they have access to something valuable rather than of no value to the donor. The key to this condition is access to resources which are perceived as <u>useful</u> and can fulfill a need.

3. A Mechanism for the Exchange of Resources.

Resources can only be used and collaboration can only take place when there is a mechanism for the exchange from one party to another. The

mechanism may be formal or informal, may, in fact, not even look like a "real" mechanism, but it must exist. It may take the form of staff development or inservice education, for example. The key to this condition is the existence of a mechanism which is observable to all parties involved, wherein all participants know not only what resources are being exchanged, but also how they are exchanged.

4. Feedback Concerning Results of the Collaboration

Because all collaboration is energy consuming, participants need to know whether their efforts are worthwhile and whether their goals are being met. Feedback has four components. Each is important:

(a) Equity: Equity need not necessarily mean that all collaborators benefit in the same proportion or that they contribute in the same measure. However, each collaborator should feel that the relationship is fair and equitable. Participants should not feel that they have been taken advantage of, exploited, or used in any way. If shared goals are clearly identified and delineated, if resources are regarded as useful, and if the exchange mechanism for the collaboration has been effective and observable, a sense of equity should result. This feedback can be assessed by answering the questions, "Has this been an equitable relationship for me?" "Has this been an equitable relationship for the others involved?"

(b) Effectiveness: This feedback is assessed by answering such questions as "Did we achieve our shared goals?" "Were resources actually exchanged?" "Does the exchange mechanism work?" "Is it doing what we want?" "Does it benefit the children?"

(c) Efficiency: This feedback can be assessed by answering the question, "Can I get my goals achieved more efficiently through another way?" Another term for this may be the cost-benefit of the system. All participants will at some time, formally or informally, calculate the costs to them for their participation and compare this with the benefits they have received. The result will determine in large part whether participants will involve themselves in another collaborative effort. Evaluation, formative and summative, is necessary in order to determine this efficiency and to provide necessary feedback.

(d) Rewards: Rewards should include a recognition of the success of the project and the part each collaborator played in that success. This can be assessed by answering such questions as "Are the success of the project and the importance of the volunteered

resources being communicated to the community?" "What are the most appropriate ways of doing this?"

B. GUIDELINES FOR DEALING WITH ISSUES RELATED TO PARTNERSHIPS

There are important issues to address in education-private sector collaboration. Inherent in these issues are problems to be resolved or avoided. An important part of the Project WISE Working Conferences was to develop guidelines for effective school-business collaboration. The first step was to identify issues and related problems. The second step was to prioritize these issues, the third step was to develop guidelines for resolving them, and the fourth step was to organize the issues and guidelines developmentally by four phases: (1) Getting started, (2) Implementation, (3) Sustaining interest and momentum, and (4) Evaluation. More detail and discussion of these guidelines is provided in SEDL's Models and Guidelines for Partnerships in Education (King, 1985).

Phase One: Getting Started

1. How to get partners in the community to "buy into" the collaborative project.

(a) Identify a common goal.

(b) Publicize each phase and development of the project.

(c) Obtain the commitment of the school board, superintendent and principals, and chief executive officers of major corporations, and other influential people in the community.

(d) Involve parents, school staff and students, and community groups.

(e) Encourage school and community partners to designate representatives.

(f) Set realistic timelines.

(g) Recognize and deal with concerns and hidden agenda.

(h) Define the relationship of the partnership with regard to other education and community projects.

(i) Plan and carry out some necessary action as soon as possible.

2. How to match needs of the school with available resources.

(a) Assess the needs of all schools that will be involved.

(b) Conduct a survey of the resources of all corporations, city agencies, service organizations, and others who may be involved in the partnership.

(c) Develop exchange mechanisms for applying volunteer resources to the needs of the schools.

(d) Monitor the process of exchanging and applying resources for effectiveness and efficiency.

3. How to establish mutual respect and trust among partners.

(a) Ensure that the partnership is truly collaborative, i.e., equal in authority and responsibility.

(b) Appoint a director/facilitator/leader who has human relations awareness and skills.

(c) Emphasize the common goals and other commonalities of the partners as a basis from which to resolve misunderstandings and differences of opinion.

(d) Provide meetings and informal opportunities for partners to get to know each other.

(e) Hold workshops for appropriate partnerships representatives to develop or enhance positive communications, negotiating and other human relationships awareness skills.

(f) Develop and nurture open and continual communication between all partners.

4. How to obtain funding and other resources.

(a) Obtain the necessary fundings, without "strings" attached.

(b) Search for "other resources"; there may be an almost infinite variety of volunteered human resources, services, equipment, and materials.

5. How the partnership will be structured.

(a) Consider the nature of the participating groups and the political, economical, social, and religious forces and cross currents in the community in deciding on a structure for the partnership.

(b) Examine previous and/or existing school and community service projects for possible use in partnerships.

(c) Use structures that promote positive interaction among the partners.

(d) Provide for autonomy for school-building level partnerships.

(e) Be sure that the structure provides for, and/or is compatible with, a variety of exchange mechanisms for applying resources to the needs of the school.

6. Who will provide leadership for the project.

(a) Define leadership needs.

(b) Delineate/specify who is to have leadership responsibilities.

Phase Two: Implementation

1. How to manage resources and facilitate the exchange mechanism.

(a) Utilize resources, especially human resources, and involve partners in the process as soon as possible.

(b) Acknowledge teacher/principal/school requests immediately.

(c) Provide opportunities for partners to get together.

(d) Provide latitude and support for the individual school and community partners to work out details of the exchange.

(e) Establish two-way communication throughout the process.

(f) Furnish sufficient information on which to base a decision.

2. How to resolve "turf issues."

(a) Handle disputes only at the administrative level.

(b) Develop and involve leadership in all sectors.

(c) Have a director who is skilled in negotiating and fostering communication throughout the partnership.

3. Who will devote the necessary time and energy to make the partnership effective.

It is likely, at all levels, that most of the individuals expected to participate in the partnership are already busy. This includes chief executive officers of business, superintendents of schools, principals and mid-level managers, teachers, as well as "blue collar" and "white collar" staff. Frequently the person who is selected as director/facilitator/coordinator is someone who already has a full-time job and who is provided with no additional facilities and pay and too little clerical assistance and budget.

Collaborative partnerships probably require more time than most people might think. Leg-work, letter writing, telephoning, and meetings take more time than many volunteers have to expend. School teachers and administrators, business people, directors of community organizations are already busy without taking on more. This is why many partnerships pay a director a salary to work in the project full-time. Some partnerships also include a paid staff to assist the director. Trained volunteers can augment paid staffs. Ten trained Junior League members in Oklahoma City are coordinators in that city's Adopt-a-School Program.

Phase Three: Sustaining Interest and Momentum

1. How to maintain and/or expand the project.

(a) Anticipate and deal with the concerns of participants who are expected to change.

(b) Gather accurate information about the progress of the project's activities.

(c) Facilitate information sharing among partners.

(d) Keep the goal of the project, to improve education for the community's children, uppermost on the project agenda.

(e) Change plans when appropriate.

(f) Build credibility.

(g) Expand carefully.

(h) Maintain and strengthen relationships and trust.

2. How to maintain and strengthen relationships and trust.

(a) Continue a genuine collaborative relationship.

(b) Develop and maintain an internal network for communication among partners.

(c) Provide rewards for the partners.

Phase Four: Evaluation

1. How to evaluate effects of the project.

(a) Summative evaluation occurs at the end of the project and answers such questions as Was the goal attained? If not, why not? What was the impact/outcome of the project? Should we do the same thing again in the same way?

(b) Formative evaluation is continual through the project and answers such questions as Are the activities going as planned? Are they achieving the objectives? What, if anything, should be changed to improve the project at this point?

(c) Some staff development may be helpful in training the director and appropriate others in position to collect and analyze evaluative information.

(d) The kind of evaluation activities a partnership should have is based on its goals and objectives and, like them, is planned and set forth at the beginning of the project.

2. How to report and provide feedback to the partners and the community.

(a) Keep constituent members informed.

(b) Use targeted, open communication continually, up, down, and across.

(c) Reports to different audiences may require different approaches.

(d) Write reports clearly, succinctly, and without jargon.

(e) Provide time and opportunities for questions and comments about the report.

C. NETWORKING FOR PARTNERSHIPS

Networking can be purposefully designed and implemented as an effective tool for sharing information and technical assistance. Kathleen Devaney, in her book Networking on Purpose (1982), writes: "Don't think 'networking.' Think 'Net-working': weaving a net. Like a fisherman knotting strings by hand. ...Making and using nets of connections is as legitimate ... as recommending your dentist to a friend or asking Uncle Si to help you find a job when you're brand new in town."

Networking is most effective under the following conditions:

- when participants have a common goal and realize benefits for interacting,
- when participants, rather than seeking scientific proof of outcomes, want to see and hear examples of practices that are sustained because of self-evident success,
- when the information sought is generated and frequently adapted by successful practitioners,
- when data gathering and processing are directed toward many forms of practice, rather than narrow collecting and refining to one best way of implementing projects,
- when there are regular times for participants to get together for sharing information,
- when participants sense support, encouragement, affirmation of efforts, and a challenge for thinking,

- when the process of communicating the information is a dialog among the many participants, rather than from the top down or other one-way mode of dissemination,

Effective communication is crucial to successful partnership activities, as it helps provide a climate for collaborative activities to develop rather than to decline. At the school building level, school staff and private sector representatives learn each other's language and culture and learn to trust each other. After several schools and companies form partnerships, the trust needs to become intermural before networks wherein exchanges of ideas and resources can occur.

Other information relevant to networking to initiate and improve partnerships is included in the GUIDELINES section of this synthesis. Especially relevant are those dealing with phases two and three of partnerships, "Implementation" and "Sustaining Interest and Momentum."

SEDL has compiled a list of national organizations with interests in school and business partnerships and information about them. This list is included in the SEDL's Models and Guidelines for Education and Community Partnerships (King, 1985).

There are several notable efforts for wide area networking for educators to share ideas relating to school and business partnerships. The National School Volunteer Program (NSVP) promotes various volunteer efforts in schools, and recently its newsletter has been including an increasing amount of information about school and business partnership activities. Subscription to the montnly newsletter is $10 per year. The individual membership fee is $35. Institutional membership is $200. The NSVP can be contacted at 701 North Fairfax Street, Suite 320, Alexandria, Virginia, 22314 or by telephone, (703) 836-4880. There are also state level Volunteer School Program organizations that can be contacted through the national office.

The "Principals Yellow Pages" network was started in California in 1981 in response to principals who said they were isolated from each other so far as sharing ideas. Two catalogs, one for elementary principals and one for secondary principals, have been produced and updated periodically.

Each catalog contains information about promising practices and is supplemented with a "Yellow Pages" directory of principals to contact for more information. Some of the information is about school and business partnerships. Project staff have expanded its scope beyond California and during 1985 have produced computerized versions of the catalogs. Individuals who are interested in becoming part of this network can write to the Instructional Management Program, Far West Laboratory, San Francisco, California, 94103.

During 1986, the Southwest Educational Development Laboratory will produce a document that describes promising school and business partnership practices in a variety of school settings. This is intended to assist persons interested in starting new partnerships or expanding existing collaborative strategies in conditions similar and/or contrasting to their own.

SELECTED REFERENCES FOR NETWORKING

Cates, Carolyn S. Industry-Education Collaboration for School Improvement. San Francisco, CA: Far West Laboratory for Educational Research and Development, December 1981.

Devaney, Kathleen. Networking on Purpose. San Francisco: Far West Laboratory, 1982.

Emmerich, Michelle. "Networking: How To." St. Louis, MO: Maria Center for Learning & Life Enrichment, 1983.

Griffin, Richard A., et al. "Revamping Secondary School Science Education." Paper presented at the National Convention of the Council of States on Inservice Education (Florida, 1984). 19 p., ED 252-974.

King, Al. Models and Guidelines for Partnerships in Education. Austin, Texas: Southwest Educational Development Laboratory, 1985.

Koenigs, Sharon, et al. (Comp.). Sharing Successes across Network Institutions: A Status Report 1984. St. Louis, Missouri: Mid-Continent Regional Educational Laboratory, Inc., 1984. 347 p., ED 255-606.

Lacey, Richard A. Becoming Partners: How Schools and Companies Meet Mutual Needs. RR-83-33. Washington, DC: National Commission for Employment Policy, 1983.

Lick, Dale W. Rural School Partnerships with Higher Education and the Private Sector. Washington, DC: Department of Education, August 1985. 34, p., ED 258-789.

Long, Claudia. "Yellow Pages for Principals: Networks in Action." Phi Delta Kappan, April 1985.

Lopez, Gil, and Joel B. Aranson. Promoting Success through Collaborative Ventures in Precollege Science and Mathematics. New York, NY: National Association of Precollege Directors, 1985. 67 p., ED 258-838.

Ollson, Maya, and Ronald Lippitt. "Networking for Support, Growth and Gain." Training, February 1985.

Schmuck, Patricia A. "Networking: A New Word, A Different Game." Educational Leadership, February 1986.

Seeley, David. Education through Partnership: Mediating Structures and Education. Cambridge: Ballinger Publishing Co., 1981.

Wingate, Anne. "Communicating with Business." Educational Horizons, Fall 1983.

IV. COST AND BENEFITS OF PARTNERSHIPS

Education pays off; the cost of neglect is expensive (Levin, 1972). One recent study has estimated that "illiteracy costs our society over $12 billion per year--in lost production, in welfare, in prison costs, and in our social services" (American Association of School Administrators [AASA], 1984a). Information gathered by Project WISE in its involvement in six projects and from reports from other projects across the U.S., makes clear that there are school-private sector collaborative efforts that are cost-effective. The costs of school-community partnerships are relatively small when compared with their benefits.

Two recent reports have tried to assess the dollar value of the funds, materials, equipment, and services provided to public schools. Timpane (November 10, 1982) estimates that corporate donations to elementary and secondary schools amounts to between $30 million and $50 million. Mann (September 1984) suggests a total between $13 million and $22 million. Even the higher range represents less than half of one percent of total elementary and secondary school expenditures.

Giving USA reports that 95% of every dollar donated to education goes to higher education. The schools would no doubt like to have a larger share. If so, they will probably have to spend more money. University development offices report that they spend between 5 cents and 15 cents to raise a dollar (Mann, October 1984). The PTA of one elementary school in Albuquerque took just such an approach. This PTA donated $5 thousand dollars to hire a half-time fund-raiser and a year later reported that it was a good investment.

When raising funds, schools may want to note that professional fund raisers tell us that it is as much trouble to raise $15,000 as $150,000 and that 90% of the funds come from just 10% of the donors. Some districts are closer to the sources of such funding than other districts.

In Mann's study (September 1984) of partnerships in 23 cities, about three-fourths of the superintendents said that they could not estimate the

total value of corporate contributions to their schools. Five of the districts estimated that this kind of support was worth between $100,000 and $2 million ayear with a mean of perhaps $800,000. All of the superintendents said that the partnerships were of value to their districts. Even one half of one percent of school district funding is more than they would have had and there were some benefits that could have no price tag.

Depending on the nature of the project and other resources volunteered, the amount of necessary funding varies from project to project. When considering how much funding might be necessary for a project, the observation of a Virginia high school principal with successful experience in education-private sector partnerships is a helpful reminder: there is a danger that if school-community partnerships are viewed exclusively in monetary terms, worthwhile projects might be rebuffed for economic reasons. Then truly valuable benefits would never be realized (Elliott, April 1983).

Resources contributed to the schools can include funds, equipment, materials, meeting space, and people's time, experience, skills, and expertise. If they meet a specific need, the material contributions are important, and some funding is usually essential. But, it is the human resource that really makes important things happen for students and schools. When students and teachers know that others care enough about them and what they are doing to get involved with them, their morale may be raised--and their performance level raised as well. One superintendent who has seen this happen has said: "It is difficult to evaluate the impact of [school and community partners working together], but it is impossible not to see the positive effects." (Superintendent Robert N. Fortenberry, Jackson, Mississippi).

Sometimes the good outcomes are anticipated, and sometimes they come unexpectedly, when one good thing just leads to another. This is synergy, when two or more parts (or partners) interact in such a way as to produce a total effect that is greater than the sum of the parts. This does not seem to happen with volunteered "things," it happens when people combine their

time, efforts, skills, knowledge, and good will to accomplish a common goal in helping to provide the best possible education for their community's children. Research-based and experience-based models and guidelines can help school and business and community partners' work more efficient, effective, and even synergistic.

Although some benefits may take a year or more to be realized, in a well planned and implemented partnership, the morale and mutual understanding of the participants begin increasing almost immediately. Some of the immediate benefits have been shown in a report of a collaborative project involving Milwaukee area schools and the Rexnord Corporation. Results, reported soon after the program began in 1976, included the following:

- Supervisors and teachers became supportive of each other's work.
- Teachers gained new resources for their classrooms and discovered the human aspects of business, as business people better understood the problems of education.
- The company developed links with an important element of the community and improved their public relations.
- Company employees gained new respect for teachers and students and also discovered the interdependency of business and education (Rexnord, 1983).

Other benefits--for students and schools, the community, business, labor and the nation--are shown below.

Students and School Benefits

Collaborative community efforts can bring important resources to students and schools--additional expertise, material, equipment, and human resources--that might otherwise not be available to meet their needs. If effectively conceived, planned, and implemented, education-community partnerships can be expected to provide the following benefits:

- Increased literacy and competence.
- Deeper understanding of how basic skills are used in business.
- Students and teachers more challenged by new ideas.

- Increased understanding about careers in business and other community organizations.
- Better understanding and appreciation of relationships between school and total lifestyle patterns.
- Improved attitudes toward work as a valuable part of society.
- Increased motivation to learn subject matter taught in schools.
- Better understanding of the interdependence of occupations.
- More diversified opportunities for career exploration.
- Better informed consumers
- Improved morale and self concept for students
- Improved teacher morale.
- More efficient school operations through increasing use of business management techniques.
- Increased awareness among educators of the business point of view on many issues.
- Clearer understanding in the community of student and school problems and needs.

Community Benefits

People who do not have basic academic skills cannot participate fully in society. One study estimates that citizens without adequate basic skills earn $4,000 less per year than their counterparts who have those skills. Functional illiteracy may be responsible for as much as $6.7. billion in social programs and $6 billion in lost production each year (AASA, 1984a).

Local Chambers of Commerce have found that a strong public school system is one of the greatest assets in recruiting new businesses to settle in their communities. The educational system is one of the key factors in any company's decision to relocate (AASA, 1984b). A community perceived as having inadequate schools is less attractive to businesses and may suffer from a diminishing tax base.

Other benefits of school-private sector partnerships to the community include:

- Increased awareness of school problems and successes.
- Better informed and educated citizens.
- Increased support for the school system.
- Schools that are more responsive to community needs.
- Increased cooperation among community leaders.
- Strengthened community stability.
- Increased community tax base.
- Enhanced quality of life in the community.

Business Benefits

The partnership that a business establishes with the schools is an investment that can provide the private sector with great returns. Sometimes some business firms consider their work with schools as one means of discharging a community, public service responsibility (Chaffee, 1980, p. 9). Other benefits to the company and its employees include these:

- Increased equal employment opportunities.
- Educators and students who are more informed about public policy decisions affecting business.
- Decline in on-the-job training needs.
- Improved employee morale as companies become involved in meeting school needs.
- Better organized and more visible volunteer efforts among employees.
- Increased influence among corporations on how their taxes are used to support better schools.
- Increased understanding of business projects, services, and policies.
- Enhanced company image.

- A better educated and qualified workforce, needed in an information/technological economy, becomes increasingly available.

Labor Union Benefits

Organized labor is concerned about community welfare as well as that of its own members. Labor unions are concerned about the image of labor that young people get through the mass media and their schooling. According to one report on work, fewer than one character in on television is a blue-collar worker, and these few are usually portrayed with undesirable social traits (Chaffee, 1980). The literature indicates that collaborative relationships among labor, education agencies, and the corporate world enhances the public image of unions, and promotes a better match with regard to preparation for present and future jobs (National Association of Manufacturers, 1982). Other benefits of school-community partnerships include the following:

- Enhanced links between labor and community colleges and higher education adult education programs.
- Increased quality and quantity of apprenticeship programs.
- Enhanced technical and scientific literacy of the workforce.
- Decreasing unemployment as more jobs are opened for union members and potential members.
- A better understanding in the community, especially among young people, of the role of unions in collective bargaining, facilitating access to jobs, and providing healthier working conditions.

National Benefits

The benefits of education-private sector collaboration accrue to the nation as well as to students, schools, community, businesses, and labor unions. Clearly, as the elements of society benefit, the nation as a whole benefits as well. But there are more specific ways in which the nation's interests are served. As students become better informed about interrelationships among the pieces of society, they grow into better informed adult citizens more capable of making decisions about issues for which they will

have increasing responsibility. Well informed, educated citizens foster the production of reliable goods and services which contribute to local, state, community, and national economies. The Brookings Institution credits education as being the primary factor in the economic growth of the United States in the last 50 years (Education Daily, August 27, 1984). Further:

- A healthier national economy contributes significantly to the success of the United States in the increasingly interrelated international economy.

- The national defense is enhanced as the U. S. population becomes not only more literate, but more literate in science, mathematics, and technology, which helps prepare a defense force that can develop and operate increasingly complex weapons systems.

The most important benefits to the nation, however, are probably incalculable ones, in the expanded abilities and horizons of individuals who can achieve a sense of self worth and an ability to interract positively with each other.

Perhaps the most exciting aspect of school and business partnerships is that new benefits are constantly being realized as new school and private sector relationships, new resources, and new ideas are continually being discovered.

School and business partnerships cannot, in themselves, provide all of the resources needed to improve public education. That will require a continuing commitment to high standards not only from business, but from parents, students, educators, school board members, and other public officials (Committee for Economic Development, 1985). But, in addition to their resources, the private sector has helped the public become more involved in its schools and more aware of school needs. And the more involved and aware the community is, the more benefits can accrue to the schools, to the community, and, indeed, to the general welfare.

REFERENCES
FOR
COSTS AND BENEFITS OF PARTNERSHIPS

American Association of School Administrators. Citizens and the Schools: Partners in Education. Arlington, Va.: AASA, 1984a.

American Association of School Administrators. Business and Industry Partners in Education. Arlington, Va.: AASA, 1984b.

American Council of Life Insurance. The Stake of the Life and Health Insurance Business in Public Schools. Washington, D.C.: American Council of Life Insurance, October 21, 1983.

Chaffee, John, Jr. Business-School Partnerships: A Plus for Kids. Arlington, Va.: National School Public Relations Association, 1980.

Committee for Economic Development. Investing in Our Children: Business and the Public Schools. New York: Committee for Economic Development, 1985.

Elliott, James A., et al. "Private Sector Initiatives in Education: Education Concerns about Business. NASSP Bulletin, April 1983.

Levin, Henry M. "The Costs to the Nation of Inadequate Education." A report prepared for the Select Senate Committee on Equal Educational Opportunity. Washington, D.C.: U. S. Government Printing Office, 1972.

Levine, Marsha (Ed.). The Private Sector in the Public School: Can it Improve Education? Washington, D.C.: American Enterprise Institute, 1985.

Mann, Dale. "All that Glitters: Public School/Private Sector Interaction in Twenty-Three U. S. Cities." A report prepared for the Exxon Education Foundation by Teachers College, Columbia University, September 1984.

Mann, Dale. "It's Up to You to Steer those School/Business Partnerships." The American School Board Journal, October 1984.

Rexnord Resource Center. Activate Someone. Brookfield, Wisc.: Rexnord Resource Center, 1983.

U. S. Department of Commerce, Bureau of the Census. Lifetime Earnings Estimates for Men and Women in the United States. Washington, D.C.: U. S. Government Printing Office, 1983.

Evaluation Form

Document: Synthesis of Information Relating to School and Business Partnerships
Date: _____

Instructions: Please assist us in improving our products by rating the document on each criterion below using the five-point scale. Write any additional comments you may have in the space provided.

1 = Poor 3 = Average 5 = Excellent
2 = Fair 4 = Good N = No opinion

1. Does the format of the synthesis allow it to be used efficiently for its intended purpose? 1 2 3 4 5 N

2. Is the format of the synthesis appropriate for your use in school-business partnerships? 1 2 3 4 5 N

3. Is the content of the synthesis presented in language that can be easily understood? 1 2 3 4 5 N

4. Is the information presented relevant and useful to you in your school-business partnership role? 1 2 3 4 5 N

5. Is the information presented current? 1 2 3 4 5 N

6. Is the information presented sufficiently representative of the range of school-business partnership concerns? 1 2 3 4 5 N

7. Overall, how would you rate the document as a synthesis of information on school-business partnerships? 1 2 3 4 5 N

8. Additional comments may be made here: _____

_____

_____

Please answer these questions to help us understand who you are.

1. In what area do you primarily work? (Check one)

___ Classroom level
___ School level
___ District level
___ Higher education
___ Community organization
___ Intermediary organization
___ Professional association
___ Other (Please specify) _____
___ State agency
___ State government
___ Private business

2. What is your title or position? _____

3. What state do you live in? _____

Thank you for responding. Your answers will aid us in improving our efforts in the region. If you would like to be added to our mailing list, please enclose your name and address with this form (or send it in a separate mailing). Please return to:

Evaluation
Southwest Educational Development Laboratory
211 East 7th Street
Austin, TX 78701